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OF THE  
COMMONWEALTH OF AUSTRALIA

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The Right Honorable the Treasurer

BY

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## PREFACE

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By the Constitution of the Commonwealth of Australia, the Parliament of the Commonwealth is empowered, subject to the Constitution, "to make laws for the peace, order, and good government of the Commonwealth, with respect to . . . . . Census and statistics." In the exercise of the power so conferred, a *Census and Statistics Act* was passed in 1905, and in the year following the Commonwealth Bureau of Census and Statistics was created. The first Official Year Book was published early in 1908. The publication here presented is the forty-ninth Official Year Book issued under the authority of the Commonwealth Government.

The Synopsis on pp. xi to xxix following shows the general arrangement of the work. The special index (preceding the General Index) provided at the end of the volume, together with certain references given in the various chapters, will assist in tracing in previous issues special articles and other more or less important miscellaneous matter which, in order to conserve space, have been omitted or abbreviated in the present volume. Where, in the General Index, more than one reference to a subject is given, the chief reference (or references) has been specially indicated wherever possible.

Among the new matter included and existing matter revised or rearranged in this volume the following items may be especially mentioned.

Chapter III. General Government. Special article on the Commonwealth Parliament (pp. 65-71); revised and enlarged section relating to Commonwealth Government Departments (pp. 87-98).

Chapter V. The Territories of Australia. Special article on growth and development of Canberra (pp. 122-32); new tables showing results of the 1961 Population Census of External Territories (pp. 164-78).

Chapter IX. Population. New tables showing results of the 1961 Population Census (pp. 317-35); revised section on overseas arrivals and departures (pp. 336-42).

Chapter XI. Housing and Building. New tables on Census dwellings showing results of the 1961 Population Census (pp. 403-15); revised and enlarged sections relating to government housing activities and advances to home purchasers (pp. 426-44).

Chapter XII. Labour, Wages and Prices. New sections showing results of the 1962 Survey of Weekly Earnings and Hours (pp. 482-5), and the Three Weeks' Annual Leave Inquiry, 1962 (pp. 513-4).

Chapter XIII. Oversea Trade. New sections dealing with Australian Trade Missions (p. 544), and European Economic Integration (pp. 545-6).

Chapter XVIII. Education, Cultural Activities and Research. Extensively revised sections dealing with education (pp. 725-60); new matter dealing with botanical and zoological gardens (pp. 774-5), book publishing (775-7); film production, drama, etc. (pp. 777-81); special article on Science and Technology in Australia (pp. 781-4).

Chapter XX. Private Finance. New sections dealing with decimal currency (pp. 835-8), and overseas investment (pp. 894-900); enlarged section dealing with pension and superannuation schemes (pp. 906-12).

Chapter XXII. Rural Industry. Revised material incorporating the former separate chapters relating to Agricultural Production, Pastoral Production, and Farm-yard Dairy and Bee Products; new matter relating to the technical aspects of rural industry, e.g. pasture improvement, soil conservation (pp. 1001-4).

Chapters XXIII. Forestry and XXIV. Fisheries. Revised and expanded material.

Chapter XXVIII. International Relations. New chapter incorporating material previously included in the Miscellaneous chapter, together with additional sections covering Australia's participation in international affairs (pp. 1221-34).

Appendix. Preliminary results of 30th June, 1962, Census of Retail Establishments and other Services (pp. 1291-5).

The material in the Year Book has been carefully checked throughout, but I shall be grateful to those who will be kind enough to point out defects or make suggestions.

The statistics contained in the majority of the chapters of this volume relate to the years ended June or December, 1962, and the Appendix contains a selection of the more significant data which have become available since the chapters were prepared. As with previous Year Books, the contents of this issue have already been published in separate Parts as the successive chapters or groups of chapters were printed.

More detailed statistics on subjects dealt with in the Year Book are available in the various annual printed reports published by this Bureau. The more recent statistics published by the Bureau are contained in the *Digest of Current Economic Statistics* (monthly), the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, and in other publications issued monthly, quarterly, half-yearly, or yearly. These publications are listed in § 6, Statistical Publications of Australia, Chapter XXIX. Miscellaneous, and the last pages of this volume contain a list of current and recent printed publications, showing issue numbers, dates and prices.

The Deputy Commonwealth Statisticians in New South Wales, Victoria, Queensland and Western Australia publish Official Year Books concerning their respective States, and the Deputy Commonwealth Statisticians of all States issue a number of printed and mimeographed publications. These are listed on pages 1163–5 of the previous issue of this Year Book, and, together with publications of the Central Bureau, in *Publications of the Commonwealth Bureau of Census and Statistics*.

My thanks are tendered to the Deputy Commonwealth Statistician in each State, who has collected and compiled the data on which a great part of the information given in the Official Year Book is based. Thanks are also tendered to the responsible officers of the various Commonwealth and State Departments, and to others who have kindly, and often at considerable trouble, supplied information.

I also desire to express my keen appreciation of the valuable work performed by Mr. J. M. Jones, B.A., Editor of Publications, Mr. E. H. Harry, B.A., B.Com., and Mr. J. L. Melhuish, B.A., Assistant Editors, and the other officers of the Publications Division, and of the services rendered by the officers in charge of the several Branches of the Commonwealth Bureau of Census and Statistics upon whom has devolved the duty of revising the chapters relative to their respective Branches, and by the Government Printer and his staff in printing this Year Book and in assisting and advising throughout its preparation.

K. M. ARCHER,  
Commonwealth Statistician

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,  
Canberra A.C.T., September, 1963

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# OFFICIAL YEAR BOOK

OF THE

## COMMONWEALTH OF AUSTRALIA

### CHAPTER I

#### DISCOVERY, COLONIZATION AND FEDERATION OF AUSTRALIA

##### § 1. Early Knowledge and Discovery of Australia

NOTE.—The following paragraphs contain only a bare outline of the more important facts relating to the early history of Australian discovery. A more detailed summary of these facts may be found in Official Year Book No. 39 (*see p. 1*) and earlier issues.

1. *Terra Australis*.—There was, apparently, an early Chaldean tradition as to the existence of an Austral land to the south of India, and rumours to that effect found their way in the course of time to Europe. References to this *Terra Australis* are found in the works of Ælianus (A.D. 205–234), Manilius (probably a contemporary of Augustus or Tiberius Caesar), and Ptolemy (A.D. 107–161). Evidence pointing to knowledge of such a land appeared in maps and manuscripts of the Middle Ages and the fourteenth and fifteenth centuries, but there is no definite evidence connecting this so-called *Terra Australis* with Australia.

Reference by Marco Polo (1254–1324) to a land called Locac and several indications on maps and globes in the fifteenth and sixteenth centuries have been assumed to relate to Australia, but little weight can now be attached to these suppositions. Cornelius Wytfliet's map of 1597, however, indicates roughly the eastern and western coasts of Australia, as well as the Gulf of Carpentaria, although the oft-quoted passage in his *Descriptionis Ptolemaicæ Augmentum* describing the *Australis Terra* has been considered to have had its origin in the voyages through the Straits of Magellan and the discovery of Tierra del Fuego rather than that of Australia.

2. *Discovery of Australia*.—(i) *The Spaniards*. Disregarding the suggestion, for which there is no evidence, that the Arabs had come to Australia long before the Portuguese, the Spaniards, or the Dutch, and apart from the possibility that the Portuguese may have discovered part of the Australian coast before 1542, the coastal exploration of Australia may be taken as having begun with the Spaniards and the Dutch.

In 1606, the Spaniard Quiros, on reaching the island that has retained the name of Espiritu Santo (the largest island of the New Hebrides group), thought he had discovered the great land of the south, and therefore named the group *La Australia del Espiritu Santo*. After leaving the New Hebrides, Quiros sailed eastward, but Torres, his second-in-command, took a westerly course and passed through the strait that now bears his name. In all probability, he sighted the Australian continent, but no mention of it is made in his records. This voyage marks the close of Spanish activity in the work of discovery in the South Seas.

(ii) *The Dutch*. The Dutch discovered Australia when the Dutch East India Company sent the *Duyfken* from Bantam, Java, to explore the island of New Guinea. During March, 1606, the *Duyfken* coasted along the southern shores of New Guinea and followed the west coast of Cape York peninsula as far as Cape Keer-Weer (Turn Again).

During the following thirty years, there were nine visits of Dutch navigators to Australian waters; by 1636, through their efforts, the coast of Australia from Cape York westward around to the Great Australian Bight had been discovered.

In 1642, Abel Janszoon Tasman set out from Batavia to ascertain the extent of the great southern continent. He named Van Diemen's Land, imagining it to be part of Australia proper, and sailing north-easterly discovered New Zealand and returned to Batavia. In his second voyage, in 1644, Tasman visited the northern coast of Australia, sailing round the Gulf of Carpentaria and along the north-west coast as far south as the tropic of Capricorn. This voyage of Tasman's may be said to have ended the period of Dutch discoveries, although there were subsequent visits by the Dutch to Australia (de Vlamingh in 1696 and Van Delft in 1705).

3. **Discoveries by the English.**—In the meantime, the English had made their first appearance on the Australian coast in 1688, when the north-westerly shores were visited by William Dampier, as supercargo of the *Cygnat*, a trading vessel whose crew had turned buccaneers. In 1699, he again visited Australia, in command of H.M.S. *Roebuck*, and on his return to England published an account in which a description is given of trees, flowers, birds and reptiles observed, and of encounters with natives.

At the end of the seventeenth century, it was uncertain whether Tasmania and New Zealand were parts of Australia, or whether they were separated from it but themselves formed part of a great Antarctic Continent. Lieutenant (later Captain) James Cook's first voyage, though primarily undertaken for the purpose of observing the transit of Venus from Tahiti, had also the objective of ascertaining whether the unexplored part of the southern hemisphere was only an immense mass of water or contained another continent. In command of H.M.S. *Endeavour*, a barque of 370 tons burden carrying about 85 persons, and accompanied by Sir Joseph Banks the botanist, Dr. Solander the naturalist, Green the astronomer, draughtsmen and servants, Cook, after observing the transit of Venus at Tahiti, turned toward New Zealand, sighting that land on 7th October, 1769, in the neighbourhood of Poverty Bay. Circumnavigating the North and South Islands, he proved that New Zealand was connected neither with the supposed Antarctic Continent nor with Australia, and took formal possession thereof in the name of the British Crown. On 20th April, 1770, at 6 a.m., Cook sighted the Australian mainland at a place he called Point Hicks, naming it after his first-lieutenant, who first saw it. Coasting northwards, Botany Bay was discovered on 29th April, 1770. The *Endeavour* dropped anchor and Cook landed on the same day. Cook sailed along the coast in a northerly direction for nearly 1,300 miles until 11th June, 1770, when the *Endeavour* was seriously damaged by striking a coral reef in the vicinity of Trinity Bay. Repairs occupied nearly two months, and the *Endeavour* then again set her course to the north, sailing through Torres Strait and anchoring in the Downs on 13th July, 1771. In 1772, Cook was put in command of the ships *Resolution* and *Adventure*, with a view to ascertain whether a great southern continent existed. Having satisfied himself that, even if it did, it lay so far to the south as to be useless for trade and settlement, he returned to England in 1774. Cook's last voyage was undertaken in 1776, and he met his death on 14th February, 1779, by which date practically the whole coast of Australia had been explored. The only remaining discovery of importance was the existence of a channel between Tasmania and Australia. This was made by Bass and Flinders in 1798.

## § 2. The Annexation of Australia

1. **Annexation of the Eastern Part of Australia, 1770.**—Although representatives of the nations mentioned in the previous section landed or claimed to have landed on the shores of Australia on various occasions during the sixteenth and seventeenth centuries, it was not until 23rd August, 1770, that the history of Australia was brought into definite political connexion with Western civilization. It was on that date that Captain Cook took possession "of the whole eastern coast, from latitude 38° S. to this place, latitude 10½° S., in right of His Majesty King George the Third". Cook, however, proclaimed British sovereignty over only what are now the eastern parts of New South Wales and Queensland, and formal possession, on behalf of the British Crown, of the whole of the eastern part of the Australian continent and Tasmania was not taken until 26th January, 1788. It was on this last date that Captain Phillip's commission, first issued to him on 12th October, 1786, and amplified on 2nd April, 1787, was read to the people whom he had brought with him in the "First Fleet".

A full historical account of the period referred to may be found in the *Historical Records of New South Wales*, Vol. I., parts 1 and 2.

2. **Original Extent of New South Wales.**—The commission appointed Phillip "Captain-General and Governor-in-Chief in and over our territory called New South Wales, extending from the Northern Cape or extremity of the coast called Cape York, in the latitude of ten degrees thirty-seven minutes south, to the southern extremity of the said territory of New South Wales of South Cape, in the latitude of forty-three degrees thirty-nine minutes south and of all the country inland westward as far as the one hundred and thirty-fifth degree of east longitude reckoning from the meridian of Greenwich, including all the islands adjacent in the Pacific Ocean within the latitudes aforesaid of ten degrees thirty-seven minutes south and forty-three degrees thirty-nine minutes south".

Although Captain Cook had taken possession of the North Island of New Zealand in November, 1769, and of the South Island in January, 1770, it is doubtful whether, at the time when Captain Phillip's commission was drawn up, New Zealand was considered

as one of the "islands adjacent in the Pacific Ocean". The fact that under the *Supreme Court Act (Imperial)* of 1823, British residents in New Zealand were brought under the jurisdiction of the Court at Sydney, and that in 1839 there was a proposal on the part of the British Government to appoint a consul in New Zealand, would leave this an open question, as nothing more than extra-territorial jurisdiction may have been intended. Various hoistings of flags notwithstanding, New Zealand does not appear to have become British territory unequivocally until 1840. In that year, on 29th January, Captain Hobson arrived at the Bay of Islands. On the following day, he read the commission, which extended the boundaries of the Colony of New South Wales so as to embrace and comprehend the islands of New Zealand. On 5th February, the Treaty of Waitangi, made with the native chiefs, was signed. Finally, on 21st May, British sovereignty over the islands of New Zealand was explicitly proclaimed.

3. **Extension of New South Wales Westward, 1825.**—On 17th February, 1824, Earl Bathurst notified Sir Thomas Brisbane that he had recommended to His Majesty the dispatch of a ship of war to the north-west coast of New Holland for the purpose of taking possession of the coast between the western coast of Bathurst Island and the eastern side of Coburg Peninsula. Captain James J. Gordon Bremer of H.M.S. *Tamar*, who was selected for the purpose, took possession on 20th September, 1824, of the coast from the 135th to the 129th degree of east longitude. On 16th July, 1825, the whole territory between those boundaries was described in Darling's commission as being within the boundaries of New South Wales, thus increasing its area by 518,134 square miles, and making it, including New Zealand and excluding Tasmania, 2,076,308 square miles, or also excluding New Zealand, 1,972,446 square miles.

4. **Annexation of Western Australia, 1827.**—An expedition under Major Lockyer, sent by Lieutenant-General Sir Ralph Darling, then Governor of New South Wales, to found a settlement at King George Sound, sailed from Sydney on 9th November, 1826, landed at the Sound on 26th December following, and on 21st January, 1827, hoisted the British flag. Captain Stirling, in command of H.M.S. *Success*, arrived at Sydney a few weeks after the departure of the expedition to King George Sound. He obtained the Governor's permission to visit Swan River with a view to seizing a position on the western coast and reporting upon its suitability as a place of settlement. Captain Stirling left Sydney on 17th January, 1827, and on his return in the following April submitted a glowing report on what he described as a "rich and romantic country", urging its occupation for the purpose of settlement. He left for England in July, 1827, continuing his advocacy—notwithstanding much discouragement—with unabated enthusiasm. He was at last successful, the result being due mainly to the formation of an association of prospective settlers having capital at their disposal. He was appointed Lieutenant-Governor and with a party of settlers arrived at Garden Island, near the Swan River, in the ship *Parmelia* in June, 1829. On the 2nd of the preceding month, Captain Fremantle, in command of H.M.S. *Challenge*, arrived and hoisted the British flag on the south head of Swan River, again asserting possession of "all that part of New Holland which is not included within the territory of New South Wales". Thus, before the middle of 1829, the whole territory now known as the Commonwealth of Australia had been constituted a dependency of the United Kingdom.

### § 3. The Creation of the Several Colonies

1. **New South Wales.**—In Governor Phillip's commission of 1786, the mainland of Australia was divided by the 135th meridian of east longitude into two parts. The earliest colonists believed that the present State of Tasmania was actually joined to the mainland, and it was not until 1798 that the contrary was known. In that year, Bass and Flinders proved that it was an island by sailing through Bass Strait. The territory of New South Wales, as originally constituted, and of New Zealand, which may be included although Cook's annexation was not properly given effect to until 1840, consisted of 1,584,389 square miles. A further area of 518,134 square miles was added in 1825, when the western boundary was extended to the 129th east meridian. The territory was subsequently reduced by the separation of various areas to form the other colonies, and at the time of the establishment of the Commonwealth the area of New South Wales was 310,372 square miles.

Lord Howe Island, which is a dependency of New South Wales and for political purposes is included in one of the electorates of Sydney, is situated in latitude 31° 30' south, longitude 159° 5' east, about 436 miles north-east of Sydney, and has an area of 3,220 acres. The climate is mild and the rainfall abundant, but on account of the rocky

formation of its surface only about 300 acres are suitable for cultivation, most of which are devoted to the production of *Kentia* palm seed. The land belongs to the Crown and is occupied rent-free on sufferance. Discovered in 1788, the Island was first settled by a small party of Maoris in 1853; afterwards a colony was settled from Sydney. A Board of Control at Sydney manages the affairs of the Island and supervises the palm seed industry. The population was 249 at the Census of 30th June, 1961.

2. **Tasmania.**—In 1825, Van Diemen's Land, as Tasmania was then called, was politically separated from New South Wales, being constituted a separate colony on 14th June of that year. The area of the colony was 26,215 square miles.

Macquarie Island, about 1,000 miles south-east of Hobart, together with a few rocky islets nearby, has been a dependency of Tasmania since the nineteenth century. In December, 1911, five members of the Australian National Antarctic Expedition landed on the island and remained there until 1915. On 3rd March, 1948, another party was landed to man a new station and this has since been maintained as a scientific base. The island is about 21 miles long and two miles wide.

3. **Western Australia.**—The territory westward of the 129th meridian, comprising 975,920 square miles, was constituted a colony under the name of Western Australia in June, 1829. It was always distinct and independent of New South Wales, except for the settlement on King George Sound (*see* p. 3), which remained under the jurisdiction of New South Wales until 1831.

4. **South Australia.**—On 15th August, 1834, the Act 4 and 5 William IV., cap. 95, was passed, creating South Australia a "province", and settlement took place towards the end of the year 1836. The first Governor, Captain Hindmarsh, R.N., arrived at Holdfast Bay on 28th December, 1836, and on the same day the new colony was officially proclaimed. The new colony embraced 309,850 square miles of territory, lying south of the 26th parallel of south latitude and between the 141st and 132nd meridians of east longitude. On 10th December, 1861, by authority of the *Imperial Act* 24 and 25 Vict., cap. 44, the western boundary of South Australia was extended to coincide with the eastern boundary of Western Australia, namely, the 129th east meridian. The area of the extension was approximately 70,220 square miles. Nearly two years later, on 6th July, 1863, the Northern Territory, comprising 523,620 square miles, was brought under the jurisdiction of South Australia, which thereupon controlled an area of 903,690 square miles.

5. **New Zealand.**—New Zealand, nominally annexed by Captain Cook and formally declared by proclamation in 1840 as a dependency of New South Wales by letters patent of 16th November of that year was constituted a separate colony under the powers of the Act 3 and 4 Vict., cap. 62, of 7th August, 1840. Proclamation of the separation was made on 3rd May, 1841. The area of the colony was 103,862 square miles.

6. **Victoria.**—In 1851, what was known as the "Port Phillip District" of New South Wales was constituted the colony of Victoria, "bounded on the north and north-west by a straight line drawn from Cape Howe to the nearest source of the River Murray and thence by the course of that river to the eastern boundary of the colony of South Australia". The area of the new colony was 87,884 square miles, and its separate existence took effect from 1st July, 1851, upon the issuing of the writs for the first election of elective members of the Legislative Council.

7. **Queensland.**—The northern squatting districts of Moreton, Darling Downs, Burnett, Wide Bay, Maranoa, Leichhardt and Port Curtis, together with the reputed county of Stanley, were granted an independent administration and formed into a distinct colony under the name of Queensland by letters patent dated 6th June, 1859, although separation from New South Wales was not completed until 10th December of the same year, upon the assumption of office of the first Governor. The territory comprised in the new colony was "so much of the colony of New South Wales as lies northwards of a line commencing on the sea-coast at Point Danger in latitude about 28° 8' south, running westward along the Macpherson and Dividing Ranges and the Dumaresq River to the MacIntyre River, thence downward to the 29th parallel of south latitude, and following that parallel westerly to the 141st meridian of east longitude, which is the eastern boundary of South Australia, together with all the adjacent islands, their members, and appurtenances in the Pacific Ocean". The area of the colony thus constituted was 554,300 square miles. By letters patent dated 13th March, 1861, forwarded by the Colonial Secretary to the Governor of Queensland on 12th April, 1862, the area of Queensland was increased by the annexation of "so much of the colony of New South Wales as lies to the northward of the 26th parallel of south latitude, and between the 141st and 138th meridians of east longitude, together

with all and every the adjacent islands, their members, and appurtenances, in the Gulf of Carpentaria." With this addition, the area of Queensland became 670,500 square miles. Following a thorough revision of the area of each Local Government Area of Queensland, based on the most recent maps available, the Surveyor-General, in 1958, determined the area of Queensland as 667,000 square miles—a reduction of 3,500 square miles from the area previously determined.

#### § 4. The Establishment of the Commonwealth of Australia

1. **General.**—On 1st January, 1901, the colonies mentioned, with the exception of New Zealand, were federated under the name of the "Commonwealth of Australia," the designation of "Colonies"—except in the case of the Northern Territory, to which the designation "Territory" is applied—being at the same time changed to that of "States".

2. **Transfer of the Northern Territory to the Commonwealth.**—On 7th December, 1907, the Commonwealth and the State of South Australia entered into an agreement for the transfer of the Northern Territory to the Commonwealth, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under *The Northern Territory Surrender Act* 1907 (assented to on 14th May, 1908) and by the Commonwealth Parliament under the *Northern Territory Acceptance Act* 1910 (assented to on 16th November, 1910). The Territory was formally transferred to the Commonwealth on 1st January, 1911, and became the Northern Territory of Australia.

By Imperial Order in Council, dated 23rd July, 1931, Ashmore Islands, known as Middle, East and West Islands, and Cartier Island, situated in the Indian Ocean off the north-west coast of Australia, were placed under the authority of the Commonwealth. The islands were accepted by the Commonwealth in the *Ashmore and Cartier Islands Acceptance Act* 1933, under the name of the Territory of Ashmore and Cartier Islands, on 10th May, 1934. The Act authorized the Governor of Western Australia to make ordinances having the force of law in and in relation to the Territory. An amendment to the Act in July, 1938, annexed the islands to the Northern Territory, whose laws, ordinances and regulations, wherever applicable, thereupon applied.

3. **Transfer of the Australian Capital Territory to the Commonwealth.**—On 18th October, 1909, the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 911 square miles as the Seat of Government of the Commonwealth. In December, 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on 5th December, 1910, a proclamation was issued vesting the Territory in the Commonwealth on and from 1st January, 1911. By the *Jervis Bay Territory Acceptance Act* 1915, an area of 28 square miles at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was accepted by the Commonwealth, and was transferred as from 4th September, 1915.

4. **Present Composition of the Commonwealth.**—Following the revision of the area of Queensland, as mentioned in §3 above, the total area of the Commonwealth of Australia has been determined as 2,971,081 square miles. The dates of creation and the areas of its component States and Territories are shown below.

#### THE COMMONWEALTH OF AUSTRALIA: AREA, ETC., OF COMPONENT STATES AND TERRITORIES

State or Territory	Year of formation into separate Colony or Territory	Present area in square miles	State or Territory	Year of formation into separate Colony or Territory	Present area in square miles
New South Wales	1786	309,433	Northern Territory	1863	523,620
Victoria. . .	1851	87,884	Australian Capital Territory. . .	1911	939
Queensland. . .	1859	667,000			
South Australia. . .	1834	380,070			
Western Australia	1829	975,920	Commonwealth of Australia. . .	..	2,971,081
Tasmania. . .	1825	26,215			



## § 5. The Constitution of the Commonwealth

NOTE.—Information regarding the development of the Constitutions of the various Colonies (now States), together with a brief history of the Federal movement in Australia, was embodied in this Chapter in issues of the Official Year Book up to and including No. 22.

1. **Commonwealth Constitution Act.**—*The Commonwealth of Australia Constitution Act*, 63 and 64 Vict., Chapter 12, namely: "An Act to constitute the Commonwealth of Australia", as amended by the *Constitution Alteration (Senate Elections)* 1906, the *Constitution Alteration (State Debts)* 1909, the *Constitution Alteration (State Debts)* 1928, and the *Constitution Alteration (Social Services)* 1946, is given in *extenso* hereunder, and the text contains all the alterations of the Constitution which have been made up to and including 31st December, 1962.

THE COMMONWEALTH OF AUSTRALIA CONSTITUTION ACT,  
63 & 64 VICT., CHAPTER 12.

*An Act to constitute the Commonwealth of Australia. (9th July, 1900.)*

WHEREAS the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established:

And whereas it is expedient to provide for the admission into the Commonwealth of other Australian Colonies and possessions of the Queen:

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. This Act may be cited as the Commonwealth of Australia Constitution Act.
2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.
3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.
4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies may at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.
5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State; and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.
6. "The Commonwealth" shall mean the Commonwealth of Australia as established under this Act.
- "The States" shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States; and each of such parts of the Commonwealth shall be called "a State."
- "Original States" shall mean such States as are parts of the Commonwealth at its establishment.

7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.

Any such law may be repealed as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.

8. After the passing of this Act the Colonial Boundaries Act, 1895, shall not apply to any colony which becomes a State of the Commonwealth; but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.

9. The Constitution of the Commonwealth shall be as follows:—

#### THE CONSTITUTION.

This Constitution is divided as follows:—

- Chapter I.—The Parliament:
  - Part I.—General:
  - Part II.—The Senate:
  - Part III.—The House of Representatives:
  - Part IV.—Both Houses of the Parliament:
  - Part V.—Powers of the Parliament:
- Chapter II.—The Executive Government:
- Chapter III.—The Judicature:
- Chapter IV.—Finance and Trade:
- Chapter V.—The States:
- Chapter VI.—New States:
- Chapter VII.—Miscellaneous:
- Chapter VIII.—Alteration of the Constitution.
- The Schedule.

#### CHAPTER I.—THE PARLIAMENT.

##### PART I.—GENERAL.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives, and which is hereinafter called “The Parliament”, or “The Parliament of the Commonwealth”.

2. A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

3. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise prorogue the Parliament, and may in like manner dissolve the House of Representatives.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

## PART II.—THE SENATE.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State.\* The Parliament may make laws increasing or diminishing the number of senators for each State, but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each elector shall vote only once.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws prescribing the method of choosing the senators for that State.

The Parliament of a State may make laws for determining the times and places of elections of senators for the State.

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the senators chosen for each State into two classes, as nearly equal in number as practicable; and the places of the senators of the first class shall become vacant at the expiration of [the third year] *three years*,† and the places of those of the second class at the expiration of [the sixth year] *six years*,† from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

The election to fill vacant places shall be made [in the year at the expiration of which] *within one year before*† the places are to become vacant.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of [January] *July*† following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of [January] *July*† preceding the day of his election.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it deems necessary to maintain regularity in the rotation.

15. If the place of a senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy is notified,

\* The Parliament has otherwise provided, by means of the *Representation Act* 1948, that the number of senators shall be ten for each State from the first meeting of Parliament after the first dissolution of the House of Representatives occurring after the commencement of the Act (18th May, 1948).

† As amended by Section 2 of the *Constitution Alteration (Senate Elections)* 1906. The words in square brackets have been repealed; amendments are shown in italics.

the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.

At the next general election of members of the House of Representatives, or at the next election of senators for the State, whichever first happens, a successor shall, if the term has not then expired, be chosen to hold the place from the date of his election until the expiration of the term.

The name of any senator so chosen or appointed shall be certified by the Governor of the State to the Governor-General.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

22. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote; and when the votes are equal the question shall pass in the negative.

### PART III.—THE HOUSE OF REPRESENTATIVES.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner:—

- (i) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators;
- (ii) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

But notwithstanding anything in this section five members at least shall be chosen in each Original State.

25. For the purposes of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows:—

New South Wales ..	23	South Australia ..	6
Victoria ..	20	Tasmania ..	5
Queensland ..	8		

Provided that if Western Australia is an Original State, the numbers shall be as follows:—

New South Wales ..	26	South Australia ..	7
Victoria ..	23	Western Australia ..	5
Queensland ..	9	Tasmania ..	5

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A division shall not be formed out of parts of different States.

In the absence of other provision, each State shall be one electorate.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State; but in choosing of members each elector shall vote only once.\*

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent, from the Commonwealth the Governor-General in Council may issue the writ.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows:—

(i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen:

(ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, or of a Colony which has become or becomes a State, or of the Commonwealth, or of a State.†

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

\* The Parliament has otherwise provided, by means of the *Commonwealth Electoral Act 1918-1953*. Sections 39 and 39A (repealing an earlier provision made by the *Commonwealth Franchise Act 1902*). For present qualifications see Chapter III. General Government.

† The Parliament has otherwise provided, by means of the *Commonwealth Electoral Act 1918-1953*, Section 69. For present qualifications see Chapter III. General Government.

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

#### PART IV.—BOTH HOUSES OF THE PARLIAMENT.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorized by him, an oath or affirmation of allegiance in the form set forth in the schedule to this Constitution.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

44. Any person who—

- (i) Is under any acknowledgment of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power: or
- (ii) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer: or
- (iii) Is an undischarged bankrupt or insolvent: or
- (iv) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth: or
- (v) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons:

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section iv. does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half-pay, or a pension by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth.

45. If a senator or member of the House of Representatives—

- (i) Becomes subject to any of the disabilities mentioned in the last preceding section: or
- (ii) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors: or
- (iii) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State:

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House shall be determined by the House in which the question arises.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.\*

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

50. Each House of the Parliament may make rules and orders with respect to—

- (i) The mode in which its powers, privileges, and immunities may be exercised and upheld;
- (ii) The order and conduct of its business and proceedings either separately or jointly with the other House.

#### PART V.—POWERS OF THE PARLIAMENT.†

51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) Trade and commerce with other countries, and among the States;
- (ii) Taxation; but so as not to discriminate between States or parts of States;
- (iii) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth;
- (iv) Borrowing money on the public credit of the Commonwealth;
- (v) Postal, telegraphic, telephonic, and other like services;
- (vi) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth;
- (vii) Lighthouses, lightships, beacons and buoys;
- (viii) Astronomical and meteorological observations;
- (ix) Quarantine;
- (x) Fisheries in Australian waters beyond territorial limits;
- (xi) Census and statistics;
- (xii) Currency, coinage, and legal tender;
- (xiii) Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money;
- (xiv) Insurance, other than State insurance; also State insurance extending beyond the limits of the State concerned;
- (xv) Weights and measures;
- (xvi) Bills of exchange and promissory notes;
- (xvii) Bankruptcy and insolvency;
- (xviii) Copyrights, patents of inventions and designs, and trade marks;
- (xix) Naturalization and aliens;
- (xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth;
- (xxi) Marriage:

\* The Parliamentary allowance has been varied from time to time (see pp. 69 and 70 of Official Year Book No. 42). In 1959, it was increased to £2,750, while additional allowances of £1,500 and £3,250, respectively, were granted to the Leaders of the Opposition in the Senate and the House of Representatives, and an additional allowance of £750 to the Leader in the House of Representatives (other than the Leader of the Opposition) of a recognized political party which has not less than ten members in the House of Representatives and of which no member is a Minister.

† Particulars of proposed laws which were submitted to referendums are referred to in Chapter III. General Government.

- (xxii) Divorce and matrimonial causes; and in relation thereto, parental rights, and the custody and guardianship of infants:
- (xxiii) Invalid and old-age pensions:
- (xxiiiA) *\*The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:*
- (xxiv) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States:
- (xxv) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States:
- (xxvi) The people of any race, other than the aboriginal race in any State, for whom it is deemed necessary to make special laws:
- (xxvii) Immigration and emigration:
- (xxviii) The influx of criminals:
- (xxix) External affairs:
- (xxx) The relations of the Commonwealth with the islands of the Pacific:
- (xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws:
- (xxxii) The control of railways with respect to transport for the naval and military purposes of the Commonwealth:
- (xxxiii) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State:
- (xxxiv) Railway construction and extension in any State with the consent of that State:
- (xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State:
- (xxxvi) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides:
- (xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States, but so that the law shall extend only to States by whose Parliaments the matter is referred, or which afterwards adopt the law:
- (xxxviii) The exercise within the Commonwealth, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia:
- (xxxix) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judiciary, or in any department or officer of the Commonwealth.

52. The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) The seat of Government of the Commonwealth, and all places acquired by the Commonwealth for public purposes:
- (ii) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth:
- (iii) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

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\* Under Section 2 of the *Constitution Alteration (Social Services) 1946*, the Constitution was amended by the insertion of this paragraph.



The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed law so as to increase any proposed charge or burden on the people.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provision therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

56. A vote, resolution, or proposed law for the appropriation of revenue or moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.

57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of the expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of members of the Senate and House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent, he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he withholds assent, or that he reserves the law for the Queen's pleasure.

The Governor-General may return to the House in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

## CHAPTER II.—THE EXECUTIVE GOVERNMENT.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

64. The Governor-General may appoint officers to administer such departments of State of the Commonwealth as the Governor-General in Council may establish.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.\*

66. There shall be payable to the Queen, out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.\*

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth:—

Posts, telegraphs, and telephones:		Lighthouses, lightships, beacons, and buoys:
Naval and military defence:		Quarantine.

But the Departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

\* The number of Ministers of State has been increased from time to time (see Chapter III. para. 4 (vi.)), for details) and has been 22 since 1956. The annual appropriation for Ministers' salaries has been correspondingly increased and has been £66,600 since 1959.

## CHAPTER III.—THE JUDICATURE.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.\*

72. The Justices of the High Court and of the other Courts created by the Parliament—

- (i) Shall be appointed by the Governor-General in Council:
- (ii) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity:
- (iii) Shall receive such remuneration as the Parliament may fix; but the remuneration shall not be diminished during their continuance in office.\*

73. The High Court shall have jurisdiction, with such exceptions and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

- (i) Of any Justice or Justices exercising the original jurisdiction of the High Court:
  - (ii) Of any other federal court, or court exercising federal jurisdiction; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council:
  - (iii) Of the Inter-State Commission, but as to questions of law only:
- and the judgment of the High Court in all such cases shall be final and conclusive.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits *inter se* of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits *inter se* of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked, but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

75. In all matters—

- (i) Arising under any treaty:
- (ii) Affecting consuls or other representatives of other countries:
- (iii) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party:
- (iv) Between States, or between residents of different States, or between a State and a resident of another State:
- (v) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth:

the High Court shall have original jurisdiction.

\* The *Judiciary Act* 1903 provided for a Chief Justice and two other Justices, increased by subsequent amendments to six. The *Judiciary Act* 1903 also provided for the payment of a salary of £3,500 a year to the Chief Justice and of £3,000 a year to each other Justice, later increased to £8,000 and £6,500 a year, respectively.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

- (i) Arising under this Constitution, or involving its interpretation:
- (ii) Arising under any laws made by the Parliament:
- (iii) Of Admiralty and maritime jurisdiction:
- (iv) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws—

- (i) *Defining the jurisdiction of any federal court other than the High Court:*
- (ii) *Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States:*
- (iii) *Investing any court of a State with federal jurisdiction.*

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes.

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#### CHAPTER IV.—FINANCE AND TRADE.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon; and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth; but the State shall pay to the Commonwealth a part thereof, to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State, and who is, by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

85. When any department of the public service of a State is transferred to the Commonwealth—

- (i) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth; but, in the case of the departments controlling customs and excise and bounties, for such time only as the Governor-General in Council may declare to be necessary:
- (ii) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth:
- (iii) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section; if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament:
- (iv) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

89. Until the imposition of uniform duties of customs—

- (i) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.
- (ii) The Commonwealth shall debit to each State—
  - (a) The expenditure therein of the Commonwealth incurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth;
  - (b) The proportion of the State, according to the number of its people, in the other expenditure of the Commonwealth.
- (iii) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant of or agreement for any such bounty lawfully made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which, whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two

years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

93. During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides—

- (i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State:
- (ii) Subject to the last sub-section, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an Original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth; and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth, and fifth of such years respectively, four-fifths, three-fifths, two-fifths, and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned whenever the Colony, or the Government or an officer of the Colony, is mentioned.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.

99. The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

100. The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard being had to the financial responsibilities incurred by any State in connexion with the construction and maintenance of its railways. But no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

## 103. The members of the Inter-State Commission—

- (i) Shall be appointed by the Governor-General in Council;
- (ii) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity;
- (iii) Shall receive such remuneration as the Parliament may fix; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

105. The Parliament may take over from the States their public debts [as existing at the establishment of the Commonwealth],\* or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof; and the States shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

105A.† (1.) *The Commonwealth may make agreements with the States with respect to the public debts of the States, including—*

- (a) *the taking over of such debts by the Commonwealth;*
- (b) *the management of such debts;*
- (c) *the payment of interest and the provision and management of sinking funds in respect of such debts;*
- (d) *the consolidation, renewal, conversion, and redemption of such debts;*
- (e) *the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth; and*
- (f) *the borrowing of money by the States or by the Commonwealth, or by the Commonwealth for the States.*

(2.) *The Parliament may make laws for validating any such agreement made before the commencement of this section.*

(3.) *The Parliament may make laws for the carrying out by the parties thereto of any such agreement.*

(4.) *Any such agreement may be varied or rescinded by the parties thereto.*

(5.) *Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto notwithstanding anything contained in this Constitution or the Constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.*

(6.) *The powers conferred by this section shall not be construed as being limited in any way to the provisions of section one hundred and five of this Constitution.*

## CHAPTER V.—THE STATES.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State as the case may be.

\* Under Section 2 of the *Constitution Alteration (State Debts) 1909*, the words in square brackets were omitted.

† Under Section 2 of the *Constitution Alteration (State Debts) 1928*, the Constitution was amended by the insertion of this section.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State: and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

111. The Parliament of a State may surrender any part of the State to the Commonwealth; and upon such surrender, and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State; but the net produce of all charges so levied shall be for the use of the Commonwealth; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale, or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

117. A subject of the Queen, resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

118. Full faith and credit shall be given, throughout the Commonwealth, to the laws, the public Acts and records, and the judicial proceedings of every State.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

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#### CHAPTER VI.—NEW STATES.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.

122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.



124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

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#### CHAPTER VII.—MISCELLANEOUS.

125. The seat of Government of the Commonwealth shall be determined by the Parliament, and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the Seat of Government.

126. The Queen may authorize the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

127. In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.

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#### CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

128. This Constitution shall not be altered except in the following manner:—

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State to the electors qualified to vote for the election of members of the House of Representatives.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State qualified to vote for the election of the House of Representatives.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

## SCHEDULE.

## OATH.

I, *A.B.*, do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. SO HELP ME GOD!

## AFFIRMATION.

I, *A.B.*, do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law.

(NOTE.—*The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

2. **The Royal Proclamation.**—The preceding Act received the Royal assent on 9th July, 1900. This made it lawful to declare that the people of Australia should be united in a Federal Commonwealth. This proclamation, made on 17th September, 1900, constituted the Commonwealth as from 1st January, 1901; it read as follows.

## BY THE QUEEN.

## A PROCLAMATION.

(Signed) VICTORIA R.

WHEREAS by an Act of Parliament passed in the Sixty-third and Sixty-fourth Years of Our Reign, intituled "An Act to constitute the Commonwealth of *Australia*," it is enacted that it shall be lawful for the Queen, with the advice of the Privy Council, to declare by Proclamation, that, on and after a day therein appointed, not being later than One year after the passing of this Act, the people of *New South Wales, Victoria, South Australia, Queensland, and Tasmania*, and also, if Her Majesty is satisfied that the people of *Western Australia* have agreed thereto, of *Western Australia*, shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

And whereas We are satisfied that the people of *Western Australia* have agreed thereto accordingly.

We therefore, by and with the advice of Our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of *January* One thousand nine hundred and one, the people of *New South Wales, Victoria, South Australia, Queensland, Tasmania, and Western Australia* shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

Given at Our Court at *Balmoral* this Seventeenth day of *September*, in the Year of Our Lord One thousand nine hundred, and in the Sixty-fourth Year of Our Reign.

GOD SAVE THE QUEEN.

## § 6. The External Territories of Australia

1. **Transfer of Norfolk Island.**—In 1856, Norfolk Island was created a distinct and separate settlement under the jurisdiction of New South Wales. Later, in 1896, it was made a dependency under the Governor of that colony, and finally by the passage of the *Norfolk Island Act* 1913 it was accepted as a Territory of the Commonwealth of Australia. The island is situated in latitude 29° 3' 3" S., longitude 167° 57' 5" E., and comprises an area of 8,528 acres.

2. **Transfer of British New Guinea or Papua.**—Under the administration of the Commonwealth, but not included in it, is British New Guinea or Papua, finally annexed by the British Government in 1884. This Territory was for a number of years administered by the Queensland Government, but was transferred to the Commonwealth by proclamation on 1st September, 1906, under the authority of the *Papua Act (Commonwealth)* of 16th November, 1905. The area of Papua is about 90,540 square miles.

3. **Territory of New Guinea.**—In 1919, it was agreed by the Principal Allied and Associated Powers that a mandate should be conferred on Australia for the government of the former German territories and islands situated in latitude between the Equator

and 8° S., and in longitude between 141° E. and 159° 25' E. The mandate was issued by the League of Nations on 17th December, 1920. The Governor-General of the Commonwealth was authorized to accept the mandate by the *New Guinea Act* 1920, which also declared the area to be a Territory under the authority of the Commonwealth by the name of the Territory of New Guinea. The Territory comprises about 93,000 square miles, and the administration under the mandate dated from 9th May, 1921. New Guinea is now administered under a Trusteeship Agreement with the United Nations, approved on 13th December, 1946.

4. **Nauru.**—In 1919, the Governments of the United Kingdom, Australia and New Zealand entered into an agreement to make provision for the exercise of the mandate conferred on the British Empire for the administration of the island of Nauru, and for the mining of the phosphate deposits thereon. The island is situated in latitude 0° 32' S., and longitude 166° 55' E. and comprises about 5,263 acres. The agreement provided that the administration of the island should be vested in an administrator, the first appointment to be made by the Commonwealth Government, and thereafter in such manner as the three Governments decided. The agreement was approved by the Commonwealth Parliament in the *Nauru Island Agreement Act* 1919, and a supplementary agreement of 30th May, 1923, which gave the Government immediately responsible for the administration greater powers of control over the Administrator, was approved in 1932. So far, the administrators have been appointed by the Commonwealth Government. The administration under the mandate operated from 17th December, 1920, to 1st November, 1947, since when Nauru has been administered under a Trusteeship Agreement with the United Nations.

5. **Australian Antarctic Territory.**—An Imperial Order in Council of 7th February, 1933, placed under Australian authority "all the islands and territories other than Adelie Land which are situated south of the 60th degree of South Latitude and lying between the 160th degree of East Longitude and the 45th degree of East Longitude."

The Order came into force with a proclamation issued by the Governor-General on 24th August, 1936, after the Commonwealth Parliament had passed the *Australian Antarctic Territory Acceptance Act* on 13th June, 1933. The boundaries of Adelie Land were definitely fixed by a decree of 1st April, 1938, as latitude 60° S., longitude 136° E. and longitude 142° E.

6. **Territory of Heard and McDonald Islands.**—Heard and McDonald Islands, about 2,500 miles south-west of Fremantle, were transferred from United Kingdom to Australian control as from 26th December, 1947.

7. **Territory of Cocos (Keeling) Islands.**—*The Cocos (Keeling) Islands Act* 1955 provided for the acceptance of the Cocos Islands, in the Indian Ocean, as a Territory under the authority of the Commonwealth of Australia and was parallel to an Act of the United Kingdom Parliament transferring authority over the islands to the Commonwealth. Consequent on the passing of these Acts, Her Majesty, by Order in Council, specified 23rd November, 1955, as the date of transfer. From that date, the islands came under Australian administration and an Official Representative of Australia was appointed to take charge of the local administration of the islands.

8. **Territory of Christmas Island.**—*The Christmas Island Act* 1958 provided for the acceptance of Christmas Island, in the Indian Ocean, as a Territory under the authority of the Commonwealth of Australia. Complementary legislation having been passed by the Parliament of the United Kingdom, the island was transferred to the Australian administration on 1st October, 1958, and an Official Representative was appointed to administer the Territory.

## CHAPTER II

### PHYSIOGRAPHY

#### § 1. General Description of Australia

1. *Geographical Position.*—(i) *General.* The Australian Commonwealth, which includes the island continent of Australia proper and the island of Tasmania, is situated in the Southern Hemisphere, and comprises an area of 2,971,081 square miles, the mainland alone containing 2,944,866 square miles. Bounded on the west and east by the Indian and Pacific Oceans respectively, it lies between longitudes 113° 9' E. and 153° 39' E., while its northern and southern limits are the parallels of latitude 10° 41' S. and 43° 39' S., or, excluding Tasmania, 39° 8' S. On its north are the Timor and Arafura Seas and Torres Strait, on its south the Southern Ocean. The extreme points are Steep Point on the west, Cape Byron on the east, Cape York on the north, and South-East Cape or, if Tasmania be excluded, Wilson's Promontory, on the south.

(ii) *Tropical and Temperate Regions.* Of the total area of Australia, nearly 39 per cent. lies within the tropics. Taking the latitude of the Tropic of Capricorn as 23° 30' S., the areas within the tropical and temperate zones are approximately as follows.

#### AUSTRALIA: AREAS OF TROPICAL AND TEMPERATE REGIONS

(Square miles)

Area	N.S.W. (a)	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	N. Terr.	Total
Within tropical zone . .	310,372	87,884	360,642	380,070	364,000	26,215	426,320	1,150,962
„ temperate zone			306,358		611,920		97,300	1,820,119
Total area . .	310,372	87,884	667,000	380,070	975,920	26,215	523,620	2,971,081

(a) Includes Australian Capital Territory (939 square miles).

Fifty-four per cent. of Queensland lies within the tropical zone and 46 per cent. in the temperate zone; 37 per cent. of Western Australia is tropical and 63 per cent. temperate; while 81 per cent. of the Northern Territory is tropical and 19 per cent. temperate. All of the remaining States lie within the temperate zone. The tropical part of Australia thus comprises about 39 per cent. of the whole of the continent.

2. *Area of Australia compared with Areas of other Countries.*—The area of Australia is almost as great as that of the United States of America excluding Alaska, four-fifths of that of Canada, more than half as large again as Europe excluding the U.S.S.R., and about 25 times that of Great Britain and Ireland. The areas of Australia and of certain other countries are shown in the table on the following page.

## AREA OF AUSTRALIA AND OF OTHER COUNTRIES, circa 1960

('000 square miles)

Country	Area	Country	Area
<b>Continental Divisions—</b>		<b>Africa—continued</b>	
Europe (a) .. ..	1,912	Rhodesia and Nyasaland ..	485
Asia (a) .. ..	10,398	Angola .. ..	481
U.S.S.R. (Europe and Asia)	8,650	South Africa, Republic of ..	472
Africa .. ..	11,695	Mali .. ..	465
North and Central America		Niger .. ..	459
and West Indies .. ..	9,361	Ethiopia and Eritrea .. ..	457
South America .. ..	6,871	Mauritania .. ..	419
Oceania .. ..	3,301	United Arab Republic (b) ..	386
<b>Total, excluding Arctic</b>		Tanganyika .. ..	362
<b>and Antarctic Conts. ..</b>	<b>52,188</b>	Nigeria, Federation of .. ..	357
		South-West Africa .. ..	318
<b>Europe (a)—</b>		Mozambique .. ..	302
France .. ..	213	Bechuanaland Protectorate ..	275
Spain (incl. possessions) ..	194	Somaliland .. ..	246
Sweden .. ..	174	Central African Republic ..	238
Finland .. ..	130	Madagascar .. ..	228
Norway .. ..	125	Other .. ..	1,776
Poland .. ..	120	<b>Total .. ..</b>	<b>11,695</b>
Italy .. ..	116		
Yugoslavia .. ..	99	<b>North and Central America—</b>	
Germany, Fed. Republic of ..	96	Canada .. ..	3,852
United Kingdom .. ..	94	United States of America (c)	3,609
Romania .. ..	92	Greenland .. ..	840
Other .. ..	459	Mexico .. ..	760
<b>Total (a) .. ..</b>	<b>1,912</b>	Nicaragua .. ..	57
		Cuba .. ..	44
<b>Asia (a)—</b>		Honduras .. ..	43
China, Mainland .. ..	3,692	Other .. ..	156
India .. ..	1,174	<b>Total .. ..</b>	<b>9,361</b>
Iran .. ..	636		
Saudi Arabia .. ..	618	<b>South America—</b>	
Mongolian People's Republic	593	Brazil .. ..	3,287
Indonesia .. ..	576	Argentina .. ..	1,072
Pakistan .. ..	366	Peru .. ..	496
Turkey .. ..	292	Colombia (excl. of Panama)	440
Burma .. ..	262	Bolivia .. ..	424
Afghanistan .. ..	251	Venezuela .. ..	352
Thailand .. ..	198	Chile .. ..	286
Iraq .. ..	172	Paraguay .. ..	157
Other .. ..	1,568	Ecuador .. ..	105
<b>Total (a) .. ..</b>	<b>10,398</b>	Other .. ..	252
		<b>Total .. ..</b>	<b>6,871</b>
<b>U.S.S.R. .. ..</b>	<b>8,650</b>		
		<b>Oceania—</b>	
<b>Africa—</b>		Commonwealth of Australia	2,971
Sudan .. ..	968	New Zealand .. ..	104
Algeria .. ..	920	New Guinea (d) .. ..	93
Congo (Leopoldville) .. ..	906	Papua .. ..	91
Libya .. ..	679	Other .. ..	42
Chad .. ..	496	<b>Total .. ..</b>	<b>3,301</b>

(a) Excludes U.S.S.R., shown below. (b) Excludes Syria, included in Other Asia.  
(c) Excludes State of Hawaii, which is included in Other Oceania. (d) Australian Trust Territory.  
Western New Guinea is included in Other Asia.

The areas shown in the table are obtained from the *Demographic Yearbook*, 1961, published by the Statistical Office of the United Nations, and the countries have been arranged in accordance with the continental groups used therein.

3. Areas of States and Territories, Coastal Configuration and Standard Times.—As already stated, Australia consists of six States and the Northern Territory and Australian Capital Territory. Particulars of areas, coastline and standard times are shown in the following table.

**AUSTRALIA: AREAS OF STATES AND TERRITORIES, COASTLINE AND STANDARD TIMES**

State or Territory	Area	Percentage of total area	Coastline	Area per mile of coastline	Standard times	
					Meridian selected	Ahead of G.M.T.
	Sq. miles		Miles	Sq. miles		Hours
New South Wales ..	309,433	10.42	(a) 700	(a) 443	150° E.	10
Victoria ..	87,884	2.96	680	129	150° E.	10
Queensland ..	667,000	22.45	3,000	222	150° E.	10
South Australia ..	380,070	12.79	1,540	247	142°30' E.	9½
Western Australia ..	975,920	32.85	4,350	224	120° E.	8
Northern Territory ..	523,620	17.62	1,040	503	142°30' E.	9½
Australian Capital Territory ..	939	0.03	..	..	150° E.	10
<i>Mainland</i> ..	<i>2,944,866</i>	<i>99.12</i>	<i>11,310</i>	<i>260</i>	..	..
Tasmania ..	26,215	0.88	900	29	150° E.	10
<b>Australia</b> ..	<b>2,971,081</b>	<b>100.00</b>	<b>12,210</b>	<b>243</b>	..	..

(a) Includes Australian Capital Territory.

There are few striking features in the configuration of the coast; the most remarkable indentations are the Gulf of Carpentaria on the north and the Great Australian Bight on the south. The Cape York Peninsula on the extreme north is the only other remarkable feature in the outline. In Official Year Book No. 1, an enumeration was given of the features of the coastline of Australia.

Prior to 1895, the official time adopted in the several colonies was for most purposes the mean solar time of the capital city of each. In 1894 and 1895, after several conferences had been held, legislation was enacted by each of the colonies whereby the mean solar times of the meridians of east longitude 120° (Western Australia), 135° (South Australia and Northern Territory) and 150° (Queensland, New South Wales, Victoria and Tasmania) were adopted. In 1898, however, the South Australian legislature amended its earlier provision and adopted the mean solar time of the meridian 142° 30' E. longitude as the standard time for that colony (and the Northern Territory). For further information on this subject, see Official Year Book No. 39, page 65.

4. Geographical Features of Australia.—(i) *General*. The following description is only a broad summary of the main physical characteristics of the Australian continent. For greater detail concerning particular geographical elements, earlier issues of the Official Year Book should be consulted. The list of special articles, etc., at the end of this volume indicates the nature of the information available and its position in the various issues.

(ii) *Orography of Australia*. (a) *General Description of the Surface*. Owing to the absence of any very high mountain chains and to the great depression in the centre of Australia, the average elevation of the Australian continent above the level of the surrounding oceans is less than that of any of the other continents. Three-quarters of the land-mass lies between the 600 and 1,500 feet contours in the form of a huge plateau.

A section through the continent from east to west, at the point of its greatest breadth, shows first a narrow belt of coastal plain. This plain, extending north and south along the whole eastern coast, is well watered by rivers. It is of variable width, seldom more than sixty or seventy miles, and occasionally only a few miles, the average being roughly about forty to fifty miles. Bordering this plain is the Great Dividing Range, which extends from the north of Queensland to the south of New South Wales and thence sweeps westward through Victoria. This range, which rises, often abruptly, from the plain, frequently presents bold escarpments on its eastern face, but the descent on its western slopes is gradual, until, in the country to the north of Spencer's Gulf, the plain is not above sea-level and occasionally even below it. Thence there is another almost imperceptible rise until the mountain ranges of Western Australia are reached, and beyond these lies another coastal plain.

The great central plain or plateau is the most distinctive feature of the Australian continent and the peculiarities of Australia's climate can probably be largely ascribed thereto.

(b) *Mountain Systems.* The main mountain feature of Australia is the Great Dividing Range, which runs along the whole eastern coast of the continent and can be traced over the islands of Torres Strait to New Guinea, while in the south one branch sweeps westwards towards the boundary of Victoria and South Australia, and the other, the main branch, terminates in Tasmania.

This mountain system is at no place more than 250 miles from the eastern coastline, and it approaches to less than 30 miles. On the whole, it is much closer to the coast in both New South Wales and Victoria than it is in Queensland, the corresponding average distances being about 70, 65 and 130 miles respectively. There is no connexion between the mountains of the eastern and other States of Australia.

The mountains of Australia are relatively low. Thus, in Queensland, the Great Dividing Range reaches a height above sea-level of less than 5,500 feet, the highest peak being Mount Bartle Frere. Mount Kosciusko, in New South Wales, is only about 7,300 feet, and Mount Bogong, in Victoria, about 6,500 feet high. In South Australia and Western Australia, heights of three to five thousand feet are attained. In Tasmania, the greatest height is only a little more than 5,000 feet. The fact that there are no high mountains in Australia is also of considerable importance in considering the climate of Australia.

It is probable that at one time Tasmania was connected with the mainland. As the Great Dividing Range can, in the north, be traced from Cape York across Torres Strait to New Guinea, so its main axis can be followed across the shallow waters of Bass Strait and its islands from Wilson's Promontory to Tasmania, which may be said to be completely occupied by ramifications of the chain. The central part of the island is occupied by an elevated plateau, roughly triangular in shape, and presenting bold fronts to the east, west and north. This does not extend in any direction more than about 60 miles. The plateau rests upon a more extensive tableland, the contour of which closely follows the coastline, and occasionally broadens out into low-lying tracts not much above sea-level. The extreme south of the island is rugged in character.

(iii) *Hydrology of Australia.* (a) *Rainfall.* On the whole, Australia is a country with a limited rainfall. This is immediately evident on studying its river systems, its lakes, and its artesian areas. Its one large river system is that of the Murray and Darling Rivers, of which the former stream is the larger and more important. Many of the rivers of the interior run only after heavy rains. Depending almost entirely on rainfall, a consequence of the absence of high mountains, they drain large areas with widely varying relation between rainfall and flow. Thus it has been estimated that not more than 10 per cent. of the rainfall on the catchment area of the Darling River above Bourke (New South Wales) discharges itself past that town. The rate of fall is often very slight.

(b) *Rivers.* The rivers of Australia may be divided into two major classes, those of the coastal plains with moderate rates of fall and those of the central plains with very slight fall. Of the former, not many are navigable for any distance from their mouths, and bars make many of them difficult of access or inaccessible from the sea.

The two longest rivers of the northern part of the eastern coast are the Burdekin, discharging into Upstart Bay, with a catchment area of 53,500 square miles, and the Fitzroy, which reaches the sea at Keppel Bay and drains about 55,600 square miles.

The Hunter is the largest coastal river of New South Wales, draining about 11,000 square miles before it reaches the sea at Newcastle. The Murray River, with its great tributary the Darling, drains a considerable part of Queensland, the major part of New South Wales and a large part of Victoria. It debouches into the arm of the sea known as Lake Alexandrina, on the eastern side of the South Australian coast. The total length of the Murray is about 1,600 miles, 400 being in South Australia and 1,200 constituting

the boundary between New South Wales and Victoria. The total length of the Murray-Darling from the source of the Darling to the mouth of the Murray is about 2,300 miles. In good seasons, the river is navigable for a considerable proportion of its length.

The rivers of the north-west coast of Australia (Western Australia) are of considerable size, e.g. the Murchison, Gascoyne, Ashburton, Fortesque, De Grey, Fitzroy, Drysdale and Ord. So also are those in the Northern Territory, e.g., the Victoria and Daly. The former of these, estimated to drain 90,000 square miles, is said to be navigable for 50 miles.

The rivers on the Queensland side of the Gulf of Carpentaria, such as the Gregory, Leichhardt, Cloncurry, Gilbert and Mitchell, are also of considerable size.

Owing to the small amount of fall of many of the interior rivers, they may flood hundreds of miles of country in wet seasons, while in dry seasons they form a mere succession of waterholes or are entirely dry. It is this fact that explains the apparently conflicting reports of the early explorers, one regarding the interior as an inland sea, and another as a desert.

The rivers of Tasmania have short and rapid courses, as might be expected from the configuration of the country.

(c) *Lakes.* The "lakes" of Australia may be divided into three classes—true permanent lakes; lakes which, being very shallow, become mere morasses in dry seasons or even dry up and finally present a cracked surface of salt and dry mud; and lakes which are really inlets of the ocean, opening out into a lake-like expanse.

The second class is the only one which seems to demand special mention. These are a characteristic of the great central plain of Australia. Some of them, such as Lakes Torrens, Gairdner, Eyre and Frome, are of considerable extent.

(d) *Artesian Areas.* A considerable tract of the plain country of New South Wales and Queensland carries a water-bearing stratum, usually at a great depth. A large number of artesian bores have been put down, from which there is a considerable flow. These are of great value and render usable large areas which otherwise would be difficult to occupy even for pastoral purposes.

For further information on this subject, see Chapter VIII. Water Conservation and Irrigation.

## § 2. Climate and Meteorology of Australia

NOTE.—This Section has been prepared by the Director of the Commonwealth Bureau of Meteorology, and the various States and Territories have been arranged in the standard order adopted by that Bureau.

1. *Introductory.*—Previous issues of the Official Year Book, notably No. 3, pages 79–83, and No. 4, pages 84 and 87, contained outlines of the history of Australian meteorology and the creation and organization of the Commonwealth Bureau of Meteorology. Official Year Book No. 38, pages 30–32, contained paragraphs devoted to (a) Organization of the Meteorological Service; (b) Meteorological Publications; (c) Equipment; and (d) Meteorological Divisions.

By reason of its insular geographical position and the absence of striking physical features, whether in marine gulfs or in important mountains, Australia is, on the whole, less subject to extremes of weather than are regions of similar area in other parts of the globe, and latitude for latitude Australia is generally more temperate.

The average elevation of the surface of the land is low, probably close to 900 feet above the sea. The altitudes range up to a little more than 7,300 feet; hence the Australian climate displays a great many features, from the characteristically tropical to what is essentially alpine, a fact indicated in some measure by the name Australian Alps given to the southern portion of the Great Dividing Range.

On the coast, more particularly the tropical sections, the rainfall is often abundant and the atmosphere moist, but in some portions of the interior it is very limited and the atmosphere dry. The distribution of forest, therefore, with its climatic influence, is very uneven. In the interior, in places, there are fine belts of trees, but there are also large areas which are treeless, and here the air is hot and parching in summer. Again, on the coast, even so far south as latitude 35°, the vegetation is tropical in its luxuriance, and to some extent also in character.



2. *Temperature*.—(i) *Effective Temperature*. When a meteorologist speaks of temperature, he means the temperature of the air indicated by a thermometer sheltered from precipitation, from direct rays of the sun and from radiation of heat from the ground and neighbouring objects, yet freely exposed to the circulation of the air. In other words, he means temperature measured under conditions standardized as nearly as possible in a Stevenson Screen, which is the standard housing for meteorological thermometers.

This shade temperature as measured by a "dry bulb" thermometer shows only the actual temperature experienced by dry inorganic substances, not the *sensible* temperatures felt by organic bodies. In the case of human beings, *sensible* temperature is affected by the rate of conduction of heat to or from the body by moving air and also by the rate of cooling due to evaporation from the skin and respiratory passages. The wind and humidity therefore determine the *sensible* temperature.

The humidity (relative humidity) is determined from the readings of the dry and wet bulb thermometers. However, with increasing interest in human comfort in tropical climates, another term, *effective* temperature, has come into use. It may be defined as "the temperature of a still, saturated atmosphere which would on the average produce the same feeling of warmth or cold as the atmosphere in question".\*

The 80° F. isotherm is confined to a very narrow tract of country extending from the north-west coast of Western Australia through the Northern Rivers section of the Northern Territory to the seaboard area around the Gulf of Carpentaria. The 75° F. isotherm extends, broadly, from Onslow on the north-west coast of Western Australia to Tennant Creek, to Boulia, to the southern part of Cape York Peninsula, thence southward along the Queensland coast to Townsville, following in a general way the coastline of northern Australia but from 100 to 300 miles inland.

From investigations which have established "comfort zones"† bounded by limits of effective temperature within which people will feel comfortable, American research workers have determined the following figures.‡

#### COMFORT ZONES: EFFECTIVE TEMPERATURES

Season			No subjects feel comfortable below—	Fifty per cent. of subjects feel comfortable between—	No subjects feel comfortable above—
Winter..	..	..	60° F.	63° and 71° F.	74° F.
Summer	..	..	64° F.	66° and 75° F.	79° F.

Investigations made in Australia§ in which the atmospheric vapour pressure was used as a measure of comfort, have shown that the limits of comfort range from 0.2 to 0.5 inch of vapour pressure. After drawing isopleths for effective temperature (not corrected for altitude), mean vapour pressure reduced to a logarithmic scale, and mean wet bulb temperature, it is found that there is close agreement in defining zones of relative discomfort.

(ii) *Seasons*. The Australian seasons are:—Summer, December to February; autumn, March to May; winter, June to August; spring, September to November. In most parts of Australia, January is the hottest month, but in Tasmania and southern Victoria, February is the hottest; in the tropical north, probably because the cooling "monsoon" rains occur in late summer, December is the hottest month, and at Darwin, November.

On a rainfall basis, in the tropical north, the year is divisible into "wet" and "dry" seasons, but on the basis of temperatures and physical comfort the "dry" season can be further sub-divided into two parts—"cool dry" and "warm dusty".||

(a) "*Cool dry*" Season. From May to August. The average maximum temperature ranges from 80° to 85° F., the relative humidity is low and in inland areas cold nights are experienced when the temperature drops to 40° F. The skies generally are cloudless, but in about one year in three during June or July one to two inches of rain fall.

\* Houghton, F. C., Teague, W. W. and Miller, W. E. (1926) Amer. Soc. Heat. Vent. Engrs. † Yaglou, C. P. (1926) J. Industr. Hyg. ‡ Yaglou, C. P. (1927) Ibid. § Barkley, H. Zones of Relative Physical Comfort in Australia, Met. Bull. 20, 1934. || Maze, W. H. Austn. Geog. June, 1945. Settlement in E. Kimberleys.

(b) "*Warm dusty*" Season. From the end of August, temperatures rise and reach a maximum in October or the beginning of November. Temperatures of over 120° F. have been recorded.

(c) "*Wet*" Season. After the first of the heavy storms, the maximum temperatures fall but still remain high with high relative humidity. At Wyndham during January, 1944, the minimum temperature did not drop below 75° F. for fourteen consecutive days. A maximum of over 100° F. was recorded on each rainless day.

In central and northern Australia, during the hottest months, the average temperatures range from 80° to 85° F., whereas in southern Australia they vary from 65° to 70° F. (see maps pp. 33, 34).

Throughout Australia, the coldest month is July, when only a very narrow strip of the northern sea-board has an average temperature as high as 75° F. Over the southern half of the continent, July temperatures range from 55° to 45° F. at elevations below 1,500 feet and fall as low as 35° on the Australian Alps (see maps pp. 35, 36). Here the temperature seldom, if ever, reaches 100° F. even in the hottest of seasons. Hotham Heights (6,100 feet above mean sea level) recorded the highest maximum of 82.0° F. on 20th January, 1935. In winter, readings slightly below zero are occasionally recorded on the extreme heights.

Tasmania, as a whole, enjoys a moderate and equable range of temperature throughout the year, although occasionally hot winds may cause the temperature to rise to 100° F. in the eastern part of the State.

(iii) *Comparisons with other Countries.* In respect of Australian temperatures generally, it may be pointed out that the mean annual isotherm for 70° F. extends in South America and South Africa as far south as latitude 33° S., while in Australia it reaches only as far south as latitude 28° S., thus showing that, on the whole, Australia has, latitude for latitude, a more temperate climate than other places in the Southern Hemisphere.

The comparison is even more favourable when the Northern Hemisphere is included, for in the United States of America the 70° F. isotherm extends in several of the western States as far north as latitude 41° N. In Europe, the same isotherm reaches almost to the southern shores of Spain, passing afterwards, however, along the northern shores of Africa till it reaches the Red Sea, when it bends northward along the eastern shore of the Mediterranean till it reaches Syria. In Asia, nearly the whole of the land area south of latitude 40° N. has a mean annual temperature higher than 70° F.

The extreme range of temperature is less than 100° F. over practically the whole of Australia, that figure being only slightly exceeded at a very few places; it is mostly 70° to 90° F. over inland areas, and somewhat less on the coast. In parts of Asia and North America, the extreme range exceeds 130° and 150° F. in some localities.

Along the northern shores of Australia, the temperatures are very equable. At Darwin, for example, the difference in the means for the hottest and coldest month is only 8.5° F., and the extreme readings, or the highest maximum on record and the lowest minimum, show a difference of about 50° F.

The highest temperature recorded in Australia was 127.5° F. at Cloncurry on 16th January, 1889. The world's highest (136° F.) was recorded at Azizia (Tripoli) on 13th August, 1922. The lowest temperature ever recorded in Australia was -8° F. at Charlotte Pass on 14th July, 1945, and again on 22nd August, 1947, as contrasted with the lowest recorded temperature in other temperate zones, where readings of -50° F. and lower have been registered at places in northern Europe, with an extreme of -67° F. at Ust' Shchugor (Russia); while in Siberian Asia, readings have been lower than -60° F. at a number of stations, the lowest being -90° F. at Oimyakon and Verkhoyansk, and in North America -76° F. has been recorded at Tanana (Alaska) and -74° F. at Watson Lake (Canada). In the polar regions, minimum readings of lower than -100° F. have been registered in Antarctica, the lowest being -125.3° F. on 25th August, 1958, and -126.9° F. on 24th August, 1960, both at Vostok.

The mean temperatures and the range from the extreme maximum to the extreme minimum temperatures (in whole degrees) of the capital cities of Australia, and a comparison with those of the main cities of some other countries are presented in tabular form in Official Year Book No. 38, page 42.

(iv) *Hottest and Coldest Parts.* A comparison of the temperatures recorded at coast and inland stations shows that in Australia, as in other continents, the range increases, within certain limits, with increasing distance from the coast.

In the interior of Australia, and during exceptionally dry summers, the temperature occasionally reaches or exceeds 120° F. in the shade. The hottest area of the continent is situated in the northern part of Western Australia about the Marble Bar and Nullagine goldfields, where the maximum shade temperature during the summer sometimes exceeds 100° F. continuously for days and weeks. The longest recorded period was 160 days from 31st October, 1923, to 7th April, 1924.

The area affected and the period of duration of the longest heat waves in Australia are shown in the map and diagram on page 37.

(v) *Tabulated Data for Selected Climatological Stations in Australia.* Tables showing normal mean temperature, extreme temperatures and normal rainfall for each month for selected climatological stations in each State and the Northern Territory appear in Official Year Book No. 40, pages 16–23, and similar data for other selected stations in the Commonwealth in Official Year Book No. 39, pages 41–48. Pages 53–60 of this issue contain this information in respect of Canberra, Darwin and the six State capitals.

(vi) *Frosts.\** The Observer's Handbook of the Meteorological Office, London, gives the following definition:—"Injury to the tissues of growing plants is not caused until the temperature has fallen considerably below the freezing point of water (32° F.) and a 'ground frost' is regarded as having occurred when the thermometer on the grass has fallen to 30.4° F. or below".

In Australia, this definition is adopted for stations equipped with terrestrial minimum thermometers. However, these are few in number, so although many rainfall observers record "hoar frost" when seen, for statistical purposes a screen temperature of 36° F. is taken as indicating light frosts at ground level. For heavy frosts, a screen temperature of 32° F. is taken.

In America, a "killing" frost is defined as a frost "that is generally destructive of vegetation". A "black frost" is the phenomenon arising out of a combination of low temperature and low humidity causing rupturing of plant cells by expansion when freezing of the water which they contain takes place, though frost crystals are not formed on the ground.

The parts of Australia most subject to low temperature are the eastern highlands from about Omeo in Victoria northward to Cambooya and Bybera in Queensland. Most stations in this region experience more than ten nights a month with readings of 32° F. or under for three to five months of the year. In Tasmania, districts on the Central Plateau are subject to such conditions for three to six months of the year. Minimum temperatures of 32° F. are comparatively infrequent in Western Australia except in parts of the south and south-west. In South Australia, the Yongala district is much more subject to such temperatures than other parts of the State. Much of the south-east of Queensland has a higher frequency of such readings than South Australia. Generally speaking, the frequency is controlled by altitude, latitude and, to a lesser degree, by proximity to the sea.

Frosts may occur within a few miles of the coastline over the whole continent, except in the Northern Territory and a considerable part of northern Queensland. Regions subject to frost in all months of the year comprise portions of the tablelands of New South Wales, the Eastern Highlands and parts of the Central Divide and Western district in Victoria, practically the whole of Tasmania, and a small area in the south-west of Western Australia.

A map showing the average annual number of frost-free days (i.e. days on which the temperature does not fall below 36° F.) appears on page 39.

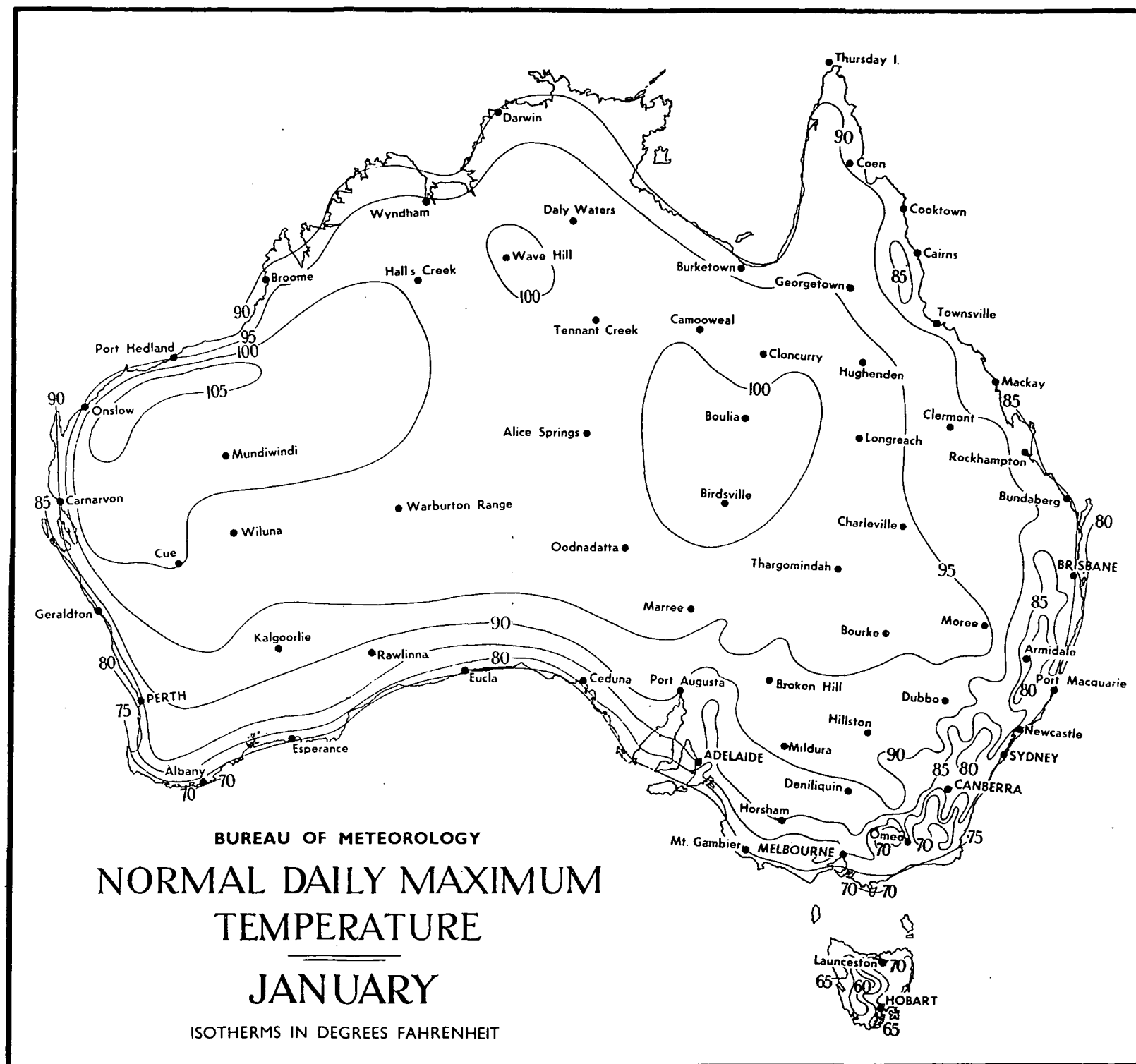
Over most of the interior of the continent, and on the highlands in Queensland as far north as the Atherton Plateau, frosts appear in April and end in September, but they are infrequent in these months. Minimum temperatures of 32° F. are experienced in most of the sub-tropical interior in June and July.

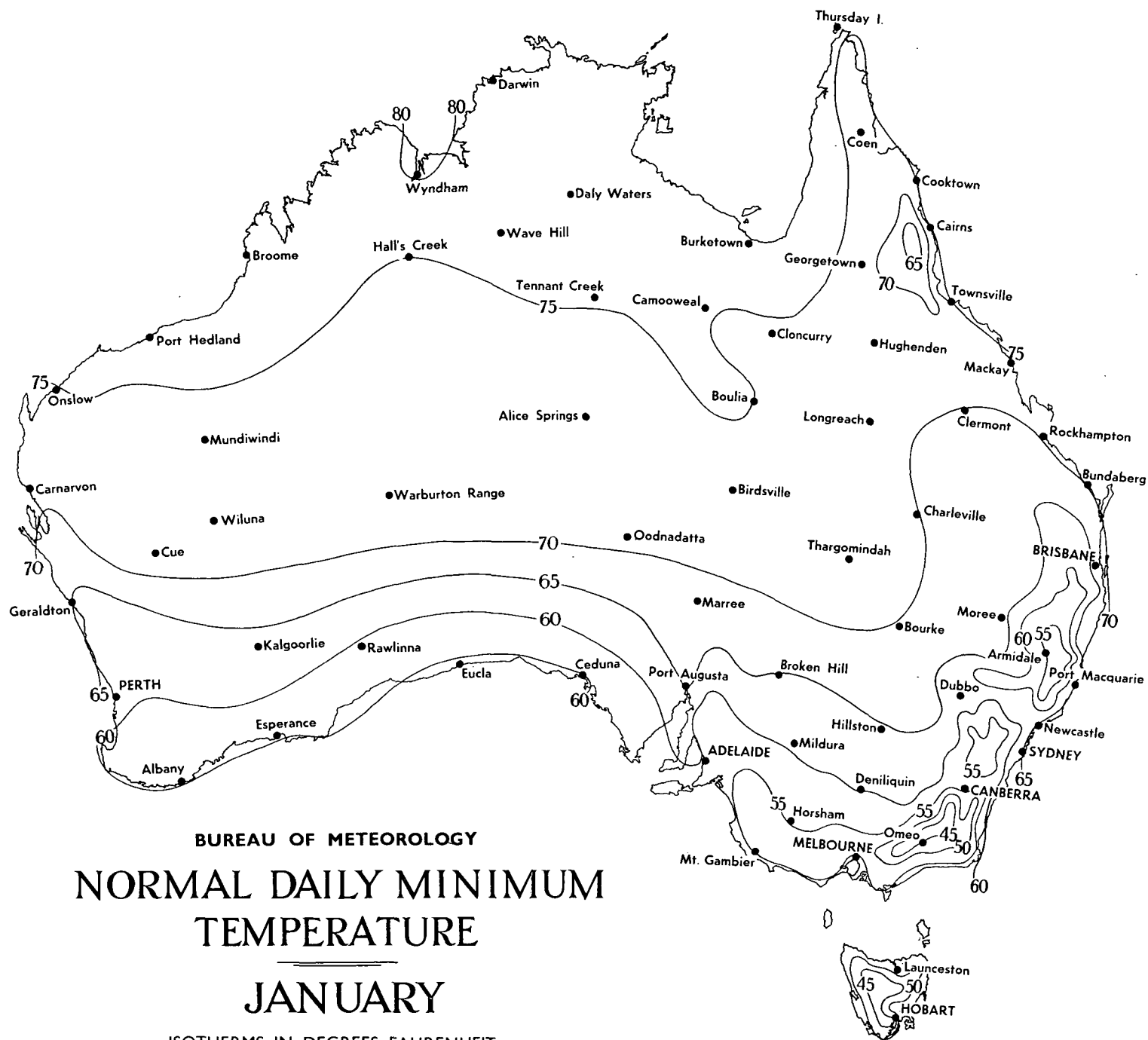
**3. Humidity.**—After temperature, humidity is the most important element of climate as regards its effects on human comfort, rainfall supply and conservation and related problems.

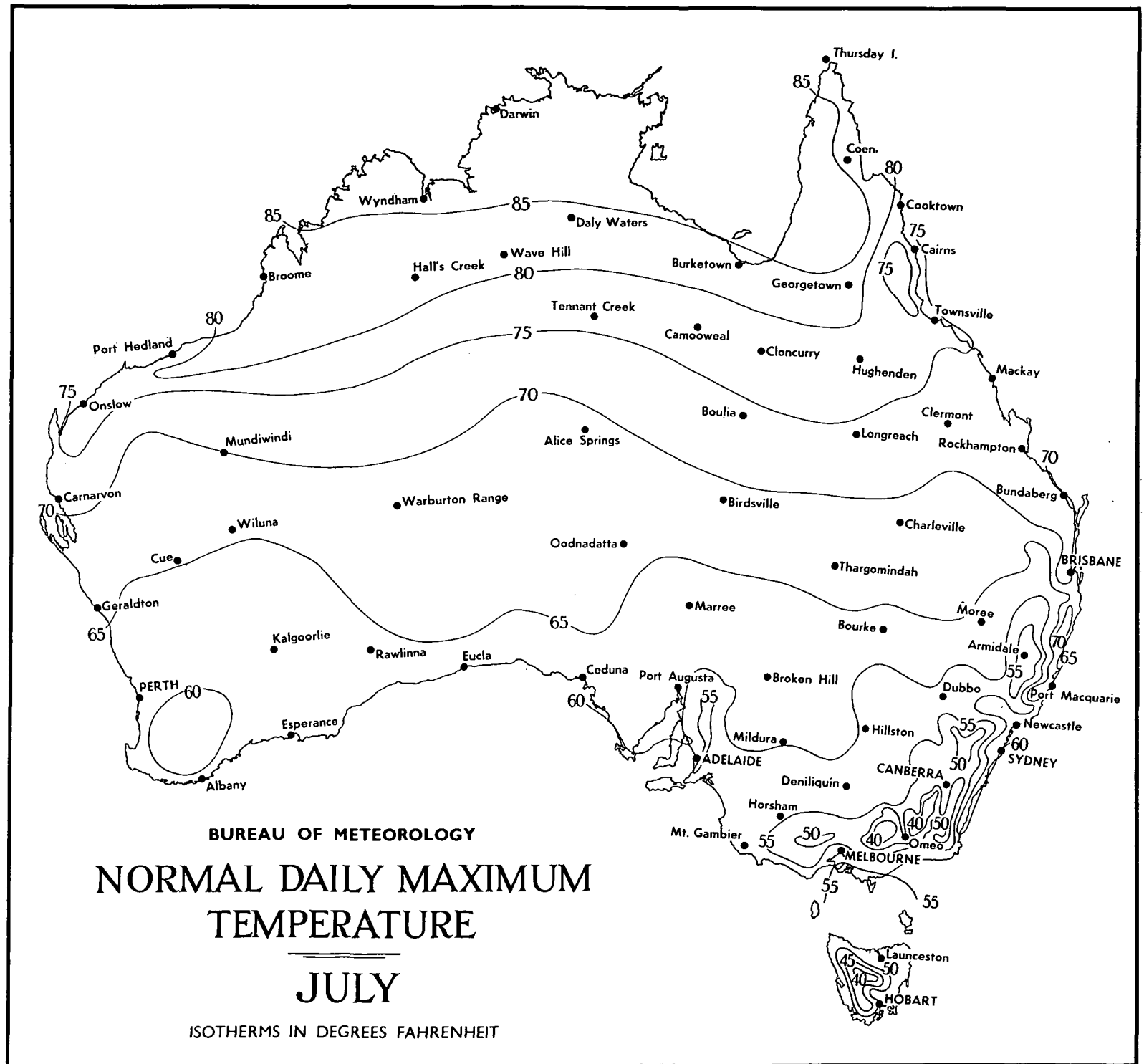
"Vapour pressure" is the pressure exerted by the water vapour in the atmosphere. At any given temperature there is a definite upper limit to the amount of water that can exist as vapour in the atmosphere. When this limit is reached, the air is said to be saturated and the pressure of the water vapour is equal to the "saturation vapour pressure".

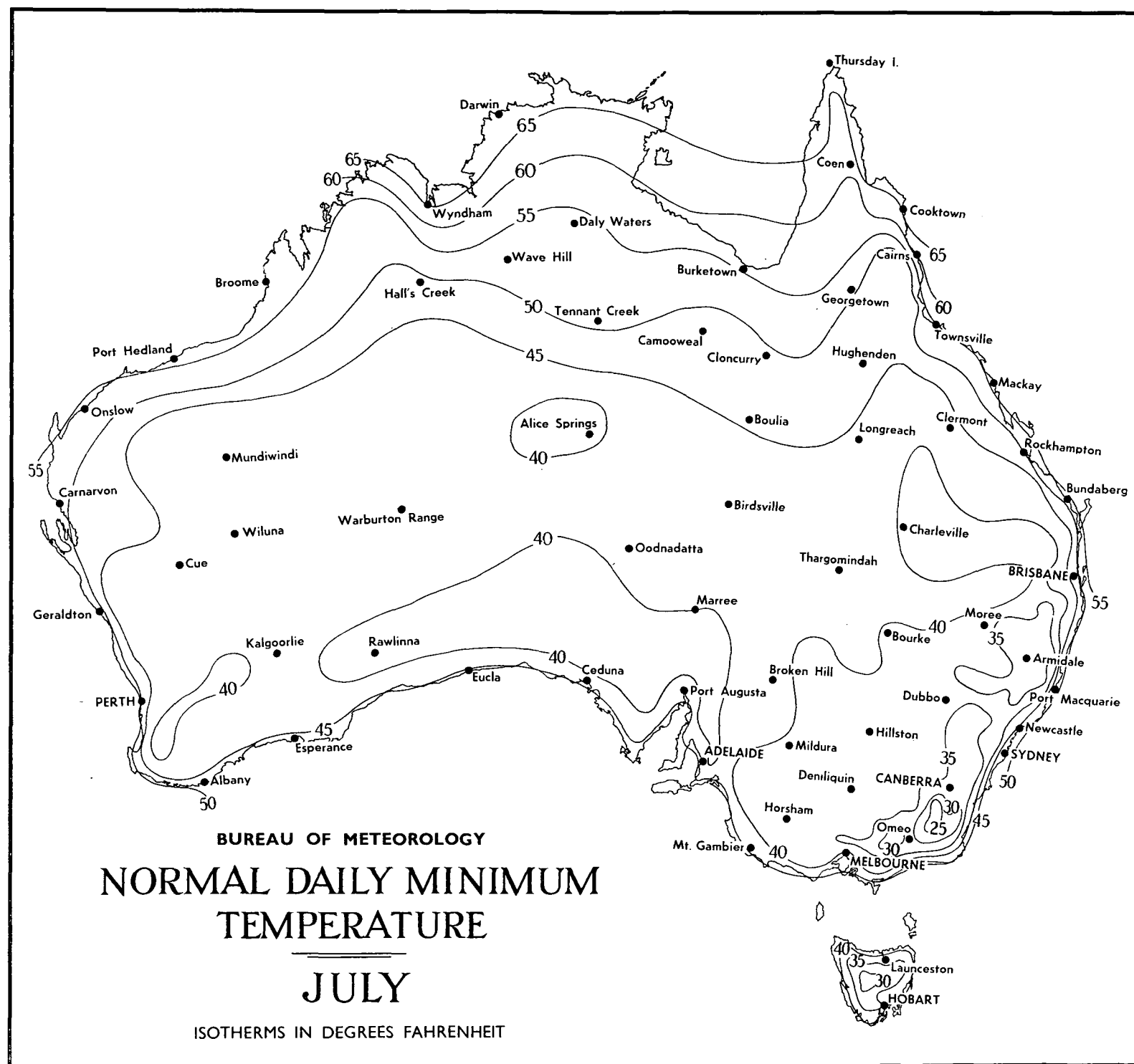
In this publication, the humidity of the air has been expressed by the relative humidity, which is the quotient of the vapour pressure divided by the saturation vapour pressure and multiplied by one hundred. The mean 9 a.m. relative humidity, as well as its highest and lowest recorded mean values at 9 a.m., are shown in the tables of climatological data for the capital cities (*see para. 14*). The mean monthly vapour pressure has also been added to these tables.

\* *See also* Foley, J. C. Frost in the Australian Region (Bull. 32, 1945).

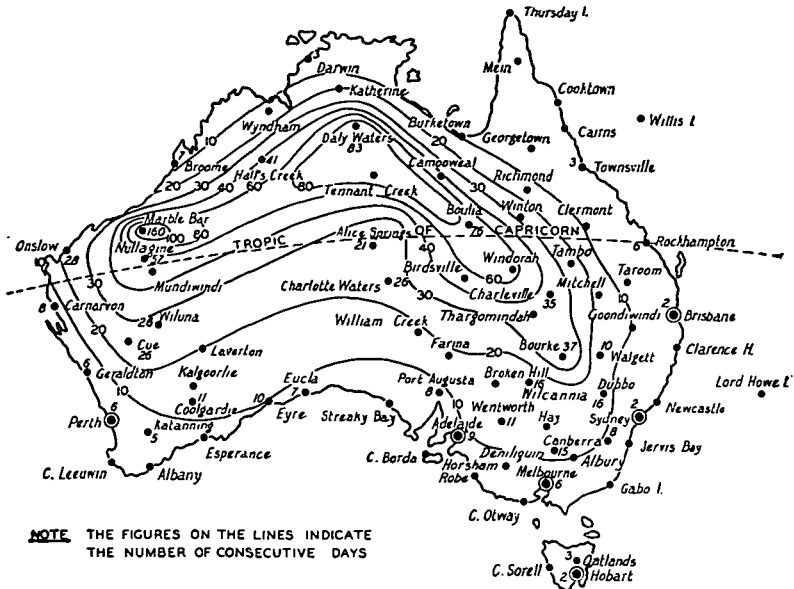




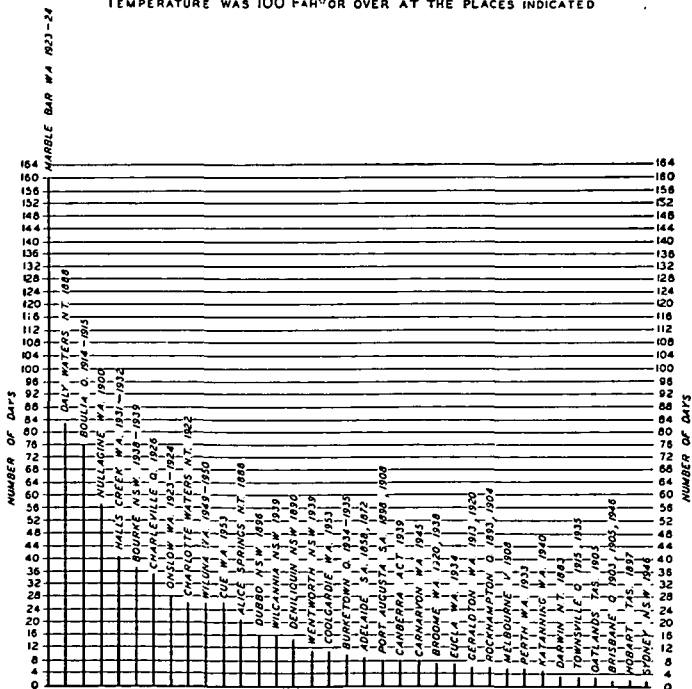




AREA AFFECTED AND PERIOD OF DURATION OF THE LONGEST HEAT WAVES WHEN THE MAXIMUM TEMPERATURE FOR CONSECUTIVE 24 HOURS REACHED OR EXCEEDED 100°F.



GREATEST NUMBER OF CONSECUTIVE DAYS ON WHICH THE SHADE TEMPERATURE WAS 100°F OR OVER AT THE PLACES INDICATED













BUREAU OF METEOROLOGY.

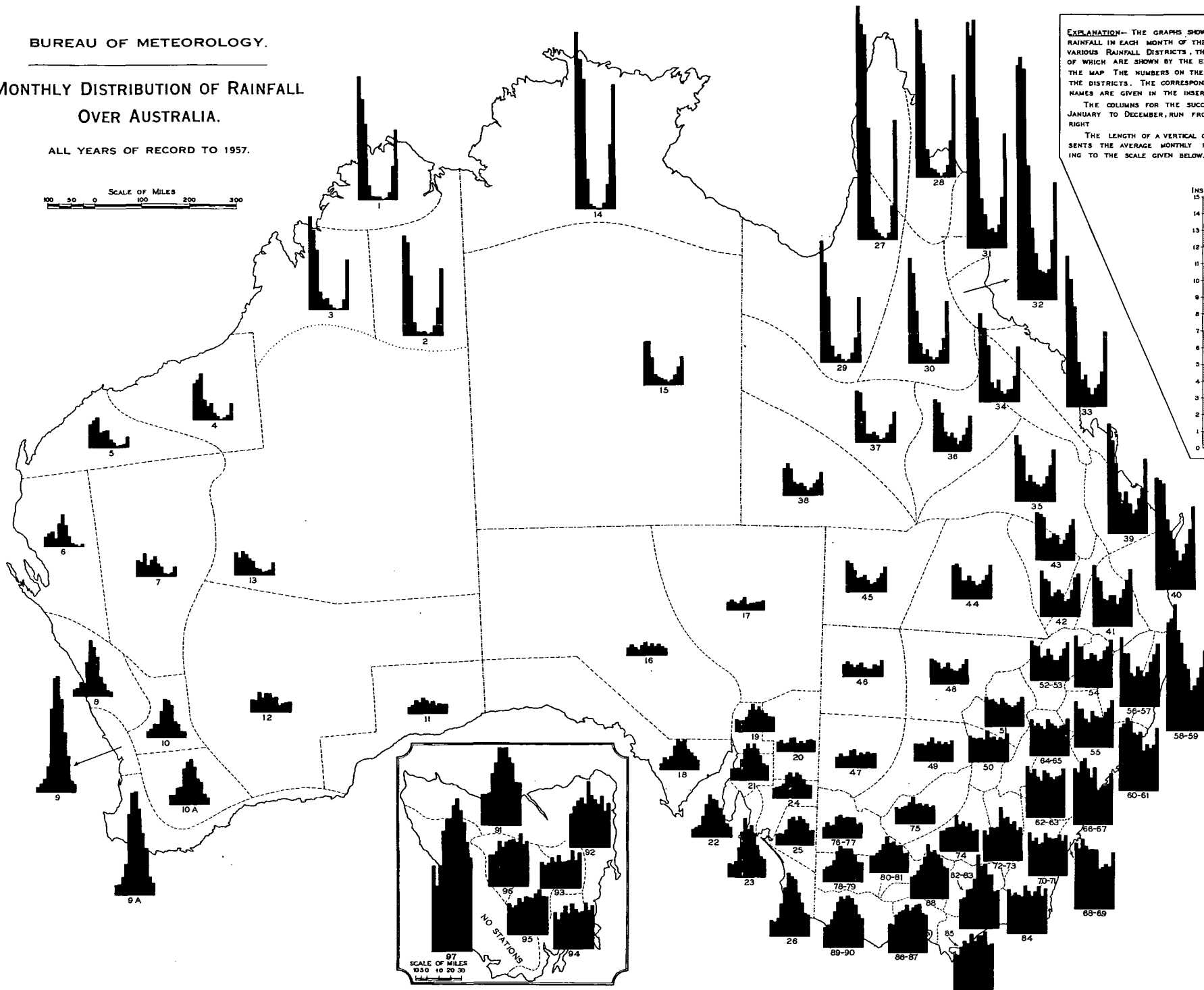
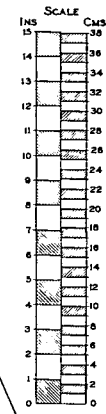
MONTHLY DISTRIBUTION OF RAINFALL  
OVER AUSTRALIA.

ALL YEARS OF RECORD TO 1957.

SCALE OF MILES  
100 50 0 100 200 300

EXPLANATION—THE GRAPHS SHOW THE AVERAGE RAINFALL IN EACH MONTH OF THE YEAR IN THE VARIOUS RAINFALL DISTRICTS. THE BOUNDARIES OF WHICH ARE SHOWN BY THE BROKEN LINES ON THE MAP. THE NUMBERS ON THE MAP REFER TO THE DISTRICTS. THE CORRESPONDING DISTRICT NAMES ARE GIVEN IN THE INSERT ON PAGE 89. THE COLUMNS FOR THE SUCCESSIVE MONTHS, JANUARY TO DECEMBER, RUN FROM LEFT TO RIGHT.

THE LENGTH OF A VERTICAL COLUMN REPRESENTS THE AVERAGE MONTHLY RAINFALL ACCORDING TO THE SCALE GIVEN BELOW.

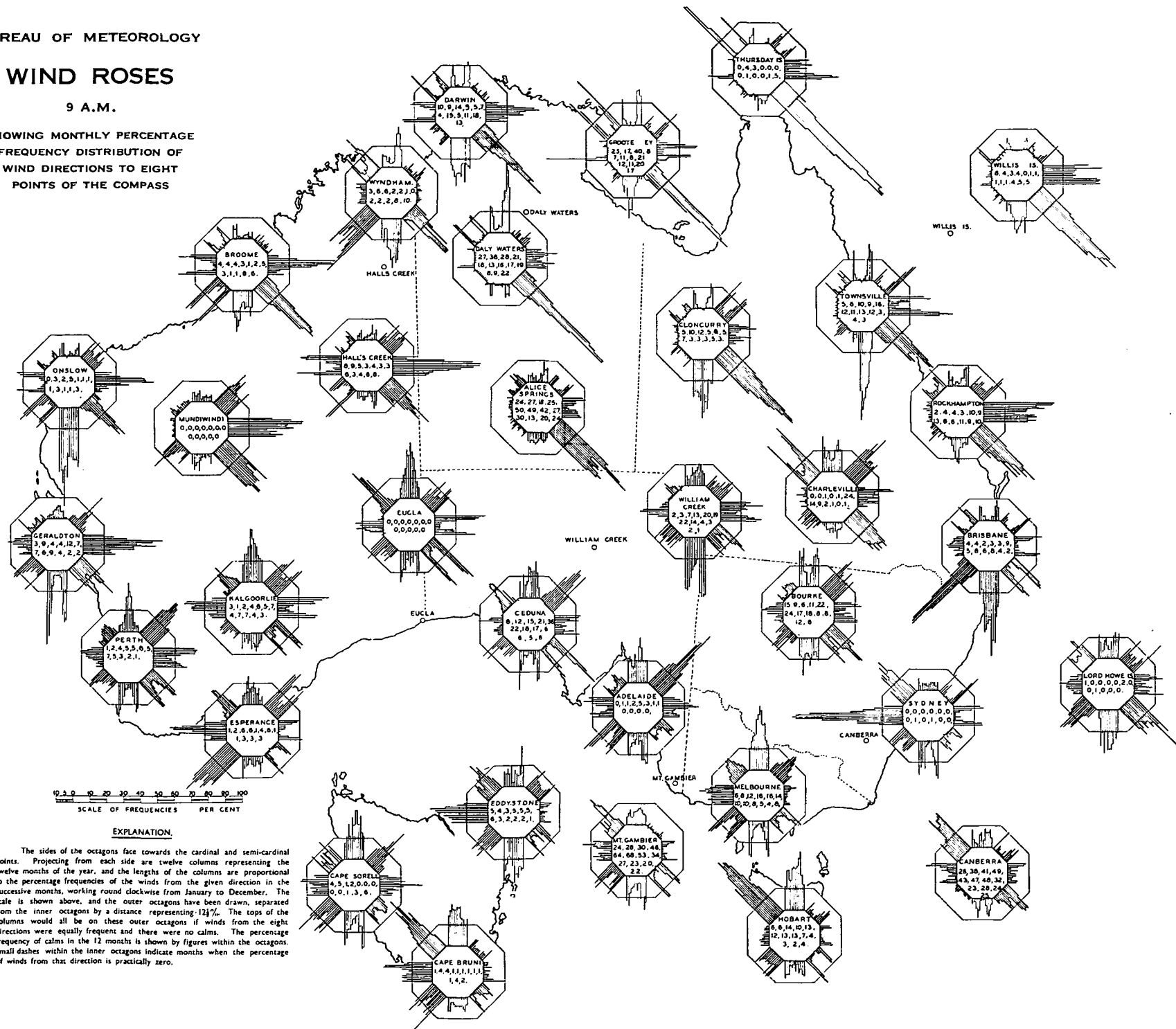


## BUREAU OF METEOROLOGY

## WIND ROSES

9 A.M.

SHOWING MONTHLY PERCENTAGE  
FREQUENCY DISTRIBUTION OF  
WIND DIRECTIONS TO EIGHT  
POINTS OF THE COMPASS

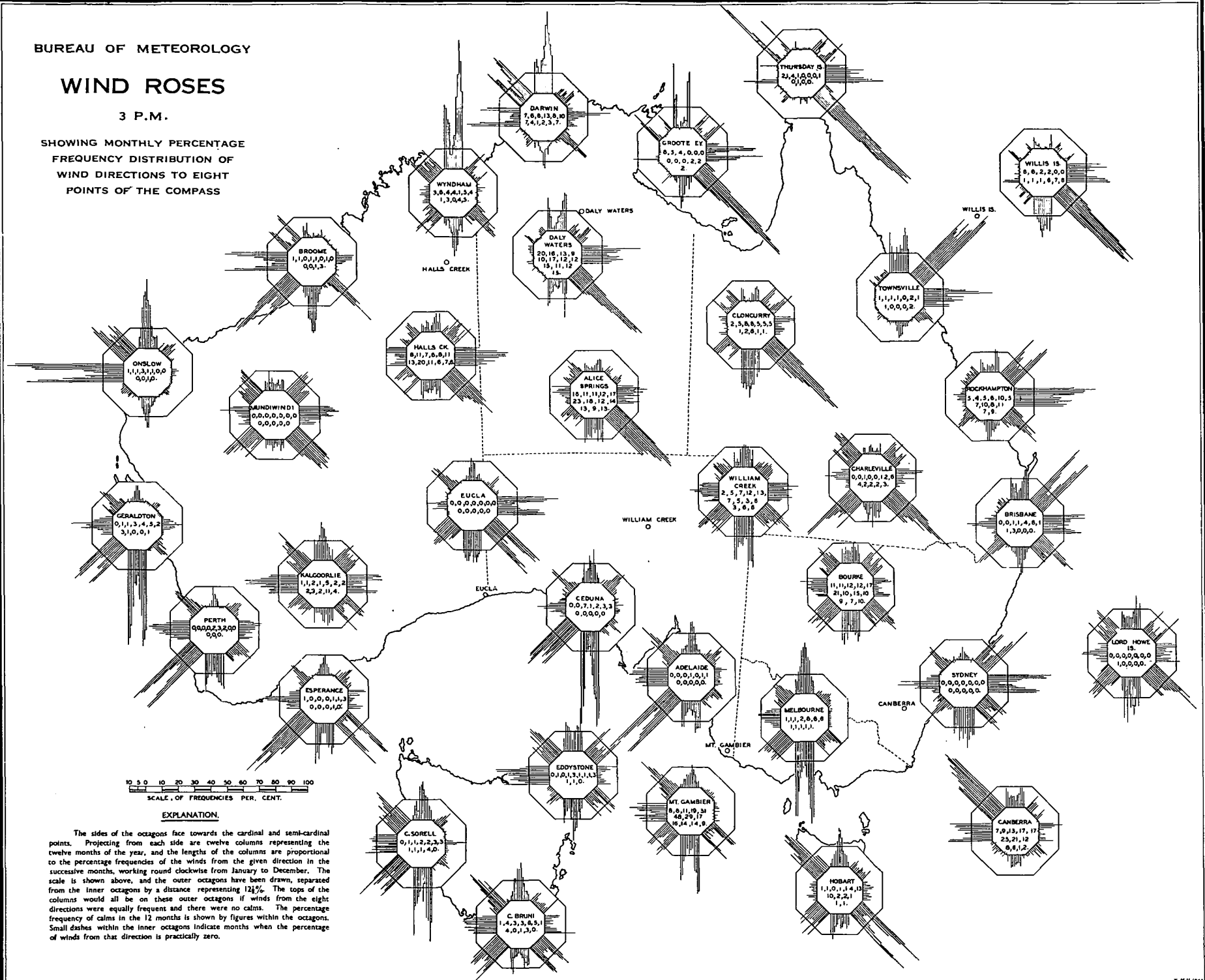


## BUREAU OF METEOROLOGY

## WIND ROSES

3 P.M.

SHOWING MONTHLY PERCENTAGE  
FREQUENCY DISTRIBUTION OF  
WIND DIRECTIONS TO EIGHT  
POINTS OF THE COMPASS



The annual curve of vapour pressure derived from the normal monthly values for this element is comparable with the maximum and minimum temperature curves, but the relative humidities, consisting as they do of the extremes for each month, do not show the normal annual fluctuation which would be approximately midway between the extremes.

The order of stations in descending values of 9 a.m. vapour pressure is Darwin, Brisbane, Sydney, Perth, Melbourne, Adelaide, Canberra, Hobart and Alice Springs, while the relative humidity at 9 a.m. diminishes in the order, Melbourne, Hobart, Sydney, Darwin, Brisbane, Canberra, Perth, Adelaide and Alice Springs.

Further references to humidity will be found in the section on effective temperature (see p. 29).

4. *Evaporation.*—(i) *General.* The rate and quantity of evaporation in any territory are influenced by the prevailing temperature, and by atmospheric humidity, pressure and wind movement. In Australia, the question is of great importance, since in its drier regions water has often to be conserved in tanks and dams. The magnitude of the economic loss by evaporation will be appreciated from the map reproduced herein (see p. 40), which shows that the yearly amount varies from about 20 inches over western Tasmania to more than 100 inches over the central and north-western parts of Australia. Over an area of 70 per cent. of the continent, comprising most inland districts and extending to the coast in the North-West and the Eucla divisions of Western Australia, the rainfall does not exceed the evaporation during any month of the year. The central and north-western portions of the continent, comprising 46 per cent. of the total land mass, experience evaporation far in excess of their rainfall; it is noteworthy that the vegetation over most of this region is characterized by acacia, semi-desert, shrub steppe and porcupine grass. Since the loss by evaporation depends largely on the exposed area, tanks and dams so designed that the surface shall be a minimum are advantageous. Further, the more they are protected from the direct rays of the sun and from winds by means of suitable tree planting, the less will be the loss by evaporation. The Mansfield process for treatment of tanks, dams and ponds by hexadecanol film, materially reducing effective evaporation, is a comparatively recent development which is having beneficial results. These matters are naturally of more than ordinary concern in the drier districts of Australia.

(ii) *Comments on Map of Average Annual Evaporation.* The map of average annual evaporation in Australia (see p. 40) has been compiled on the basis of records obtained from a number of evaporimeters supplemented by estimates derived from records of saturation deficit by applying the Waite Institute factor of 263.\* Some modification of the latter values was found to be necessary in comparison with recordings of evaporimeters.

The standard evaporation tank used in Australia is cylindrical in form and is 36 inches in diameter and 36 inches deep. It is surrounded by a 6-inch water jacket and the whole is sunk into the ground so that the water surface is approximately at ground level.

Saturation deficit is obtained from readings of dry and wet bulb thermometers exposed in a standard Stevenson thermometer shelter. Saturation deficit is the difference between the vapour pressure indicated by the dry and wet bulb readings and the saturation vapour pressure corresponding to the dry bulb temperature.

The Waite formula,  $e=263$  s.d., is not an exact relationship, but it takes account of one of the major factors in evaporation, namely, the difference between saturation vapour pressures at the mean dew point and at the mean air temperature. Errors in the formula are found to be fairly consistent in considerable areas of Australia and corrections have been applied accordingly. Only short-term evaporation records are available north of latitude 20°, and corrections have been extrapolated for these areas. The evaporation stations on which estimates for the tropics have been based are Alice Springs (Northern Territory) and Winton (Queensland), and to a lesser degree Blackall (Queensland) and Marble Bar (Western Australia).

The map thus presents an estimate of evaporation for which allowance should be made for a certain margin of error (perhaps 10 per cent. or so) on the conservative side. In the absence of definite information, such a map should serve a useful purpose as a basis for many climatic studies.

For graphs and tables of mean monthly evaporation and rainfall at certain selected stations, see Official Year Book No. 37, pages 34–35.

5. *Rainfall.*—(i) *General.* The rainfall of any region is determined mainly by the direction and route of the prevailing winds, by the varying temperatures of the earth's surface over which they blow, and by its physiographical features.

\* Prescott J. A. "Atmospheric Saturation Deficit in Australia" (Trans. Royal Society, S. A. Vol. LV., 1931).



Australia lies within the zones of the south-east trades and "prevailing" westerly winds. The southern limit of the south-east trades strikes the eastern shores at about 30° south latitude, and the heaviest rains of the Australian continent, with very few exceptions, are precipitated along the Pacific slopes to the north of that latitude, the varying quantities being more or less regulated by the differences in elevation of the shores and of the chain of mountains from the New South Wales northern border to Thursday Island, upon which the rain-laden winds blow. The converse effect is exemplified on the north-west coast of Western Australia, where the prevailing winds, blowing from the interior of the continent instead of from the ocean, result in the lightest coastal rain in Australia.

The westerly winds, which skirt the southern shores, are responsible for the reliable generally light to moderate rains enjoyed by the south-western portion of Western Australia, the agricultural areas of South Australia, a great part of Victoria, and the whole of Tasmania.

(ii) *Distribution of Rainfall.* The average annual rainfall map of Australia (see p. 41) shows that the heaviest yearly falls occur on the north coast of Queensland (up to more than 160 inches) and in western Tasmania (up to 140 inches), while from 50 to over 60 inches are received on parts of the eastern seaboard from Jervis Bay to the northern part of Cape York Peninsula, also around Darwin, on the West Kimberley coast, near Cape Leeuwin, about the Australian Alps in eastern Victoria and south-eastern New South Wales, and on the north-eastern highlands in Tasmania. A great part of the interior of the continent, stretching from the far west of New South Wales and the south-west of Queensland to the vicinity of Shark Bay in Western Australia, has a very low average rainfall of less than 10 inches a year. Between these two regions of heavy and very low rainfall are the extensive areas which experience useful to good rains, and in the southern and eastern parts of which are found the best country and most of the population and primary production.

(iii) *Factors Determining Occurrence, Intensity and Seasonal Distribution of Rainfall.* Reference has already been made to the frequent rains occurring in the north-eastern coastal districts of Queensland with the prevailing south-east trade winds, and to similar rains in the west of Tasmania with the prevailing westerly winds. Other rains in Australia are associated mainly with tropical and southern depressions.

The former chiefly affect the northern, eastern, and to some extent the central parts of the continent, and operate in an irregular manner during the warmer half of the year, but principally from December to March. They vary considerably in activity and scope from year to year, occasionally developing into severe storms off the east and north-west coasts. Tropical rainstorms sometimes cover an extensive area, half of the continent on occasions receiving moderate to very heavy falls during a period of a few days. Rain is also experienced, with some regularity, with thunderstorms in tropical areas, especially near the coast. All these tropical rains, however, favour mostly the northern and eastern parts of the area referred to; the other parts further inland receive lighter, less frequent and less reliable rainfall. With the exception of districts near the east coast, where some rain falls in all seasons, the tropical parts of the continent receive useful rains only on rare occasions from May to September.

The southern depressions are most active in the winter—June to August—and early spring months. The rains associated with them are fairly reliable and frequent over southern Australia and Tasmania, and provide during that period the principal factor in the successful growing of wheat. These depressions also operate with varying activity during the remainder of the year, but the accompanying rains are usually lighter. The southern rains favour chiefly the south-west of Western Australia, the agricultural districts of South Australia, Victoria, Tasmania and the southern parts of New South Wales. They sometimes extend into the drier regions of the interior.

The map showing mean monthly distribution of rainfall over Australia (see p. 42) gives, in graphic form, information on the amount and occurrence of rain.

(iv) *Wettest and Driest Regions.* The wettest known part of Australia is on the north-east coast of Queensland, between Port Douglas and Cardwell, where Tully on the Tully River has an average annual rainfall of about 175 inches, and Harvey Creek on the northern coast-line about 167 inches. In addition, three stations situated on, or adjacent to, the Johnstone and Russell Rivers have an average annual rainfall of between 139 and 163 inches. The maximum and minimum annual amounts there, in inches, are:—Tully, 310.92 in 1950 and 104.98 in 1943, a range of 205.94 inches; Deeral, 287.18 in 1945 and 94.65 in 1951, a range of 192.53 inches; Harvey Creek, 254.77 in 1921 and 80.47 in 1902, a range of 174.30 inches; Goondi, 241.53 in 1894 and 67.88 in 1915, a range of 173.65 inches; Innisfail, 232.06 in 1950 and 69.87 in 1902, a range of 162.19 inches.

On five occasions, more than 200 inches have been recorded in a year at Goondi, the last of these being in 1950, when 204.97 inches were registered.

In 34 years of record to 1960, Tully has exceeded 200 inches on eleven occasions, and in 29 complete years of record, Harvey Creek has exceeded this figure four times.

In Tasmania, the wettest part is in the West Coast mountain region, the average annual rainfall at Lake Margaret being about 145 inches, with a maximum of 177.30 inches in 1948.

The driest known part of the continent is an area of approximately 180,000 square miles surrounding Lake Eyre in South Australia, where the annual average rainfall is between 4 and 6 inches and where the aggregates rarely exceed 10 inches in twelve months. Records at stations have at times been interrupted, but of the places in this region, the area with the lowest means is immediately to the east of the lake, where a number of stations with long records have averages of less than 5 inches, the lowest being 4.13 inches at Troudaninna over 42 years, followed by 4.28 inches at Mulka (39 years).

Troudaninna in the period 1893 to 1936 had only one year in which the total exceeded 9 inches (11.07 inches in 1894). There have been protracted periods when the average has been even less than 3 inches. From 1895 to 1903, Troudaninna received the following annual totals:—2.78, 0.99, 5.71, 3.04, 3.18, 2.83, 1.80, 1.11, 4.87, an average of 2.92 inches. From 1918 to 1929, the average was only 2.65 inches, and in this period, from December, 1924, to November, 1929, the average was only 1.70 inches.

Mulka since 1918 has only twice exceeded 10 inches for the annual total (11.72 inches in 1920 and 13.56 in 1955), and on 17 occasions in 39 years the annual total has been less than 3 inches. In one particular period from October, 1926, to September, 1930, the average was only 1.26 inches (505 points in 48 months). However, at Kanowana, an even lower four-year average of 1.12 inches was recorded between 1896 and 1899, with yearly totals of 43, 225, 87 and 94 points, while the smallest yearly total was recorded at Mungernie in 1888 when only 39 points were recorded on five days.

The average number of days of rain a month in this region is only 1 or 2. Cordillo Downs has an average of 6.36 inches on 13 days a year, while Murnpeowie (4.71 inches) and Edwards Creek (5.56 inches) average 14 days.

No part of the earth, so far as is known, is absolutely rainless, and although at Arica, in northern Chile, the rainfall over a period of 15 years was nil, a further two years in which there were three measurable showers made the "average" for 17 years 0.02 inches.

(v) *Quantities and Distribution of Rainfall.* The general distribution is best seen from the rainfall map on page 41, which shows the areas subject to average annual rainfalls lying between certain limits. The proportions of the total area of each State and of Australia as a whole enjoying varying quantities of rainfall determined from the latest available information are shown in the following table.

AVERAGE ANNUAL RAINFALL: AREA DISTRIBUTION  
(Per Cent.)

Average annual rainfall	W. Aust.	N. Terr.	S. Aust.	Q'land	N.S.W. (a)	Vic.	Tas. (b)	Total
Under 10 inches	58.0	24.7	82.8	13.0	19.7	Nil	Nil	37.6
10 and under 15 inches	22.4	32.4	9.4	14.4	23.5	22.4	Nil	19.9
15 and under 20	6.8	9.7	4.5	19.7	17.5	15.2	0.7	10.9
20 and under 25	3.7	6.6	2.2	18.8	14.2	17.9	11.0	9.1
25 and under 30	3.7	9.3	0.8	11.6	9.1	18.0	11.4	7.3
30 and under 40	3.3	4.7	0.3	11.1	9.9	16.1	20.4	6.6
40 inches and over	2.1	12.6	Nil	11.4	6.1	10.4	56.5	8.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Includes Australian Capital Territory.  
are available.

(b) Over an area of 2,777 square miles no records

Referring first to the capital cities, the records of which are given in the next table, it will be seen that Sydney, with a normal rainfall of 44.80 inches, is the wettest, Brisbane, Perth, Melbourne, Hobart and Canberra follow in that order, Adelaide with 21.09 inches being the driest. The extreme range from the wettest to the driest year is greatest at Brisbane (72.09 inches) and least at Adelaide (19.63 inches).

In order to show how the rainfall is distributed throughout the year in various parts of the continent, average figures for the various climatological districts have been selected (see map on p. 42). The figures for Northern Rivers (District 14), show that nearly

all the rainfall occurs there in the summer months, while little or none falls in the middle of the year. The figures for the Central Coast, south-west of Western Australia (District 9), are the reverse, for while the summer months are dry, the winter months are very wet. In the districts containing Melbourne and Hobart, the rain is fairly well distributed throughout the twelve months, with a maximum in October for both districts. In Queensland, the heaviest rains fall in the summer months, but good averages are also maintained during the other seasons in eastern parts.

On the coast of New South Wales, the first half of the year is the wettest, with heaviest falls in the autumn; the averages during the last six months are fair, and moderately uniform. Generally, it may be said that approximately one-third of the area of the continent, principally in the eastern and northern parts, enjoys an annual average rainfall of from 20 to 50 inches or more, the remaining two-thirds averaging from 5 to 20 inches.

(vi) *Tables of Rainfall.* The following table of rainfall for a fairly long period of years for each of the Australian capitals affords information as to the variability of the fall in successive years, and the list which follows in the next paragraph of the more remarkable falls furnishes information as to what may be expected on particular occasions.

#### RAINFALL: AUSTRALIAN CAPITAL CITIES

Year	PERTH		ADELAIDE		BRISBANE		SYDNEY		CANBERRA(a)		MELBOURNE		HOBART(b)	
	Amount	No. of days	Amount	No. of days	Amount	No. of days	Amount	No. of days	Amount	No. of days	Amount	No. of days	Amount	No. of days
	in.		in.		in.		in.		in.		in.		in.	
1931 ..	39.18	118	22.26	145	66.72	136	49.22	153	24.02	103	28.63	164	27.17	179
1932 ..	39.40	121	25.04	141	24.79	97	37.47	146	20.18	118	31.08	179	30.29	155
1933 ..	32.47	116	22.12	130	49.71	118	42.71	153	20.78	96	22.28	136	23.18	182
1934 ..	40.61	120	20.24	125	54.26	117	64.91	183	35.58	131	33.53	157	23.17	194
1935 ..	32.28	129	23.45	140	34.64	111	30.97	131	23.78	95	29.98	183	32.22	196
1936 ..	30.64	118	19.34	121	21.77	101	30.22	130	26.24	108	24.30	187	19.60	178
1937 ..	35.28	120	23.01	128	34.79	113	52.00	157	20.46	82	21.45	144	20.65	160
1938 ..	29.64	111	19.26	119	43.49	110	39.17	132	19.26	79	17.63	131	31.32	169
1939 ..	45.70	123	23.29	139	41.43	122	33.67	127	27.63	116	33.11	166	27.23	188
1940 ..	20.00	98	16.16	116	42.37	93	39.34	125	17.38	64	19.83	126	17.17	135
1941 ..	34.74	122	22.56	126	31.50	105	26.74	129	19.55	91	31.78	157	23.49	145
1942 ..	39.24	140	25.44	133	44.01	125	48.29	121	25.76	104	29.79	148	19.42	163
1943 ..	31.46	117	17.84	135	50.68	126	50.74	136	24.59	123	18.80	150	20.84	149
1944 ..	27.39	123	17.13	114	27.85	100	31.04	115	12.05	75	21.32	143	26.23	151
1945 ..	52.67	137	17.85	105	48.16	130	46.47	136	22.35	100	19.22	152	16.92	157
1946 ..	41.47	122	22.59	135	38.66	83	36.05	111	22.31	94	29.80	177	39.45	193
1947 ..	43.42	137	21.89	146	60.30	146	41.45	137	27.95	135	30.47	163	38.61	181
1948 ..	34.75	126	21.40	122	41.54	106	38.83	131	32.11	101	20.98	155	23.42	178
1949 ..	27.15	126	18.23	119	47.18	121	66.26	149	27.71	100	31.41	163	22.85	157
1950 ..	32.27	122	16.06	91	63.93	152	86.33	183	43.35	132	26.18	147	19.25	131
1951 ..	34.14	127	25.44	135	33.89	87	53.15	143	22.00	103	29.85	155	24.57	163
1952 ..	39.28	123	19.99	128	33.49	122	59.19	130	37.87	141	34.39	177	30.35	165
1953 ..	37.14	119	20.00	121	43.60	101	40.86	110	19.40	102	28.38	148	28.06	162
1954 ..	28.05	112	16.73	109	61.36	142	41.29	134	18.81	82	33.53	139	27.20	143
1955 ..	46.52	138	24.58	134	50.41	136	72.46	160	30.85	124	30.70	160	22.32	168
1956 ..	37.35	107	27.24	154	59.18	120	67.33	155	40.46	150	30.96	188	36.63	175
1957 ..	33.40	117	16.71	110	20.58	80	27.13	110	14.41	81	20.68	146	28.66	129
1958 ..	32.08	107	17.57	121	46.61	115	59.19	144	30.23	117	26.98	155	36.55	166
1959 ..	24.23	114	11.32	88	45.84	146	59.67	164	34.41	112	25.84	131	19.28	136
1960 ..	28.21	112	23.07	129	27.51	103	51.01	152	30.99	136	33.50	162	29.35	140
1961 ..	32.27	113	14.91	122	42.36	134	57.08	161	32.34	116	22.05	129	18.03	156
Average	34.78	121	20.90	121	44.66	124	47.56	150	25.41	105	25.95	143	24.95	166
No. of	86	86	123	123	110	102	103	103	34	34	106	106	79	79
years														
Standard														
30														
years'														
normal														
(c)	35.99	128	21.09	122	40.09	117	44.80	143	24.88	103	25.89	156	25.03	180

(a) Commonwealth Forestry Bureau; records in issues of the Official Year Book prior to No. 36 were for the station at Acton which closed down in 1939. (b) Records taken from present site commenced 1883, (c) 1911-1940. (d) Twenty-nine years to 1936 inclusive.

6. Remarkable Falls of Rain.—The following are the most notable falls of rain which have occurred within a period of twenty-four hours ending at 9 a.m. in the various States and Territories. For other very heavy falls at various localities, reference may be made to Official Year Book No. 14, pages 60–64, No. 22, pages 46–48 and No. 29, pages 43, 44 and 51.

#### HEAVY RAINFALLS: WESTERN AUSTRALIA, UP TO 1961, INCLUSIVE

Name of town or locality	Date	Amt.	Name of town or locality	Date	Amt.
		in.			in.
Whim Creek ..	3 Apr., 1898	29.41	Winderrie ..	17 Jan., 1923	14.23
Fortesque ..	3 May, 1890	23.36	Pilbara ..	2 Apr., 1898	14.04
Roebuck Plains ..	6 Jan., 1917	22.36	Roebuck Plains ..	5 Jan., 1917	14.01
Widjip ..	1 Apr., 1934	19.54	Broome ..	6 Jan., 1917	14.00
Kimberley (Research) ..	6 Apr., 1959	16.98	Carlton Hill ..	7 Feb., 1942	12.75
Derby ..	7 Jan., 1917	16.47	Wyndham ..	4 Mar., 1919	12.50
Boodarie ..	21 Mar., 1899	14.53	Towrana ..	1 Mar., 1943	12.16
Balla Balla ..	21 Mar., 1899	14.40	Marble Bar ..	2 Mar., 1941	12.00
			Jimba Jimba ..	1 Mar., 1943	11.54

#### HEAVY RAINFALLS: NORTHERN TERRITORY, UP TO 1961, INCLUSIVE

Name of town or locality	Date	Amt.	Name of town or locality	Date	Amt.
		in.			in.
Brocks Creek ..	24 Dec., 1915	14.33	Borroloola ..	7 Jan., 1940	12.68
Groote Eylandt ..	9 Apr., 1931	14.29	Borroloola ..	4 Feb., 1938	12.00
Borroloola ..	14 Mar., 1899	14.00	Bathurst Island		
Timber Creek ..	5 Feb., 1942	13.65	Mission ..	7 Apr., 1925	11.85
Cape Don ..	13 Jan., 1935	13.58	Darwin ..	7 Jan., 1897	11.67

#### HEAVY RAINFALLS: SOUTH AUSTRALIA, UP TO 1961, INCLUSIVE

Name of town or locality	Date	Amt.	Name of town or locality	Date	Amt.
		in.			in.
Ardrossan ..	18 Feb., 1946	8.10	Port Victoria ..	18 Feb., 1946	7.08
Carpa ..	18 Feb., 1946	7.83	Wynbring ..	28 Feb., 1921	7.00
Edithburgh ..	18 Feb., 1946	7.46	Mannum ..	25 Jan., 1941	6.84
Hesso ..	18 Feb., 1946	7.36	Wirrabarra Forest		
Maitland ..	18 Feb., 1946	7.21	Reserve ..	7 Mar., 1910	6.80
Wilmington ..	1 Mar., 1921	7.12	Cape Willoughby	18 Feb., 1946	6.80

#### HEAVY RAINFALLS: QUEENSLAND, UP TO 1961, INCLUSIVE

Name of town or locality	Date	Amt.	Name of town or locality	Date	Amt.
		in.			in.
Crohamhurst ..	3 Feb., 1893	35.71	Springbrook ..	24 Jan., 1947	27.07
Finch-Hatton ..	18 Feb., 1958	34.58	Springbrook ..	21 Feb., 1954	27.04
Port Douglas ..	1 Apr., 1911	31.53	Mt. Jukes ..	18 Feb., 1958	26.40
Yarrabah ..	2 Apr., 1911	30.65	Buderim Mountain	12 Jan., 1898	26.20
Mt. Charlton ..	18 Feb., 1958	29.95	Flat Top Island ..	21 Jan., 1918	25.18
Mooloolah ..	3 Feb., 1893	29.11	Landsborough ..	3 Feb., 1893	25.15
Kuranda ..	2 Apr., 1911	28.80	Harvey Creek ..	31 Jan., 1913	24.72
Calen ..	18 Feb., 1958	27.84	Kuranda ..	1 Apr., 1911	24.30
Harvey Creek ..	3 Jan., 1911	27.75	Babinda (Cairns)	2 Mar., 1935	24.14
Sarina ..	26 Feb., 1913	27.75	Goondi ..	30 Jan., 1913	24.10
Plane Ck. (Mackay)	26 Feb., 1913	27.73	Banyan (Cardwell)	12 Feb., 1927	24.00
Deeral ..	2 Mar., 1935	27.60	Carruchan ..	24 Jan., 1934	24.00
Yarrabah Mission	24 Jan., 1916	27.20	Tully Mill ..	12 Feb., 1927	23.86

**HEAVY RAINFALLS: NEW SOUTH WALES, UP TO 1961, INCLUSIVE**

Name of town or locality	Date	Amt.	Name of town or locality	Date	Amt.
		in.			in.
Dorrigo ..	24 June, 1950	25.04	Viaduct Creek ..	15 Mar., 1936	20.00
Cordeaux River ..	14 Feb., 1898	22.58	Buladelah ..	16 Apr., 1927	19.80
Morpeth ..	9 Mar., 1893	21.52	Orara Upper ..	24 June, 1950	19.80
Broger's Creek ..	13 Jan., 1911	20.83	Madden's Creek ..	13 Jan., 1911	18.68
South Head (Sydney Harbour) ..	16 Oct., 1844	20.41	Condong ..	27 Mar., 1887	18.66
" ..	29 Apr., 1841	20.12	Candelo ..	27 Feb., 1919	18.58
Mount Pleasant ..	5 May, 1925	20.10	Mt. Kembla ..	13 Jan., 1911	18.25
Broger's Creek ..	14 Feb., 1898	20.05	Bega ..	27 Feb., 1919	17.88
Towamba ..	5 Mar., 1893	20.00	Kembla Heights ..	13 Jan., 1911	17.46
			Foxground ..	11 Sept., 1950	17.04

**HEAVY RAINFALLS: AUSTRALIAN CAPITAL TERRITORY, UP TO 1961, INCLUSIVE**

Name of town or locality	Date	Amt.	Name of town or locality	Date	Amt.
		in.			in.
Cotter Junction ..	27 May, 1925	7.13	Uriarra (Woodside)	27 May, 1925	6.57
Canberra (Acton)	27 May, 1925	6.84	Land's End ..	27 May, 1925	6.35

**HEAVY RAINFALLS: VICTORIA, UP TO 1961, INCLUSIVE**

Name of town or locality	Date	Amt.	Name of town or locality	Date	Amt.
		in.			in.
Balook ..	18 Feb., 1951	10.81	Blackwood (Green-hill) ..	26 Jan., 1941	8.98
Hazel Park ..	1 Dec., 1934	10.50	Tambo Crossing	13 July, 1925	8.89
Kalorama ..	1 Dec., 1934	10.05	Corinella ..	28 June, 1948	8.75
Cann River ..	16 Mar., 1938	9.94	Erica ..	1 Dec., 1934	8.66
Tonghi Creek ..	27 Feb., 1919	9.90	Mt. Buffalo ..	6 June, 1917	8.53
Cann River ..	27 Feb., 1919	9.56	Korumburra ..	1 Dec., 1934	8.51
Olinda ..	1 Dec., 1934	9.10			

**HEAVY RAINFALLS: TASMANIA, UP TO 1961, INCLUSIVE**

Name of town or locality	Date	Amt.	Name of town or locality	Date	Amt.
		in.			in.
Mathinna ..	5 Apr., 1929	13.25	Riana ..	5 Apr., 1929	11.08
Cullenswood ..	5 Apr., 1929	11.12	Triabunna ..	5 June, 1923	10.20

7. **Snowfall.**—Light snow has been known to fall occasionally as far north as latitude 31° S., and from the western to the eastern shores of the continent. During exceptional seasons, it has fallen simultaneously over two-thirds of New South Wales, and has extended at times along the whole of the Great Dividing Range, from its southern extremity in Victoria as far north as Toowoomba in Queensland. During the winter, for several months, snow covers the ground to a great extent on the Australian Alps, where the temperature falls below zero Fahrenheit during the night. In the ravines around Mt. Kosciusko and similar localities, the snow does not entirely disappear after a severe winter.

8. **Hail.**—Hail falls most frequently along the southern shores of the continent in the winter, and over eastern Australia during the summer months. The size of the hailstones generally increases with distance from the coast. A summer rarely passes without some station experiencing a fall of stones exceeding in size an ordinary hen egg, and many riddled sheets of light-gauge galvanized iron bear evidence of the weight and penetrating power of the stones.

The hailstones occur most frequently when the barometric readings indicate a flat and unstable condition of pressure. Tornadoes or tornadic tendencies are almost invariably accompanied by hail, and on the east coast the clouds from which the stones fall are frequently of a remarkable sepia-coloured tint.

9. **Droughts.**—A special article dealing with droughts was included in Year Book No. 45, pages 51–56. Fuller information is available in a Bureau of Meteorology publication *Droughts in Australia* by J. C. Foley (Bulletin 43, 1957).

10. **Barometric Pressures.**—The mean annual barometric pressure (corrected to sea level and standard gravity) in Australia varies from 29.80 inches on the north coast to 29.92 inches over the central and 30.03 inches in the southern parts of the continent. In January, the mean pressure ranges from 29.70 inches in the northern and central areas to 29.95 inches in the southern. The July mean pressure ranges from 29.90 inches at Darwin to 30.12 inches at Alice Springs. Barometer readings corrected to mean sea level and standard gravity have ranged as high, under anticyclonic conditions, as 30.935 inches (at Hobart on 13th July, 1846), and have fallen as low as 27.55 inches. This record low was registered at Mackay during a tropical hurricane on 21st January, 1918. An almost equally abnormal reading of 27.88 inches was recorded at Innisfail during a similar storm on 10th March, 1918. For graphs of Mean Barometric Pressure at Capital Cities, see Official Year Book No. 37, page 35.

11. **Wind.**—(i) *Trade Winds.* The two distinctive wind currents in Australia are, as previously stated, the south-east trade and the “prevailing” westerly winds. As the belt of the earth’s atmosphere in which they blow apparently follows the sun’s ecliptic path north and south of the equator, so the area of the continent affected by these winds varies at different seasons of the year. During the summer months, the anticyclonic belt travels in high latitudes, thereby bringing the south-east trade winds as far south as 30° south latitude. The “prevailing” westerly winds retreat a considerable distance to the south of Australia, and are less in evidence in the hot months. When the sun passes to the north of the equator, the south-east trade winds follow it, and for the greater part of the winter operate only to the north of the tropics. The westerly winds come into lower latitudes during the same period of the year. They sweep across the southern areas of the continent from Cape Leeuwin to Cape Howe, and during some seasons are remarkably persistent and strong, occasionally penetrating to almost tropical latitudes.

(ii) *North-west Monsoon.* As the belt of south-east trade winds retreats southward during the summer, it is replaced in the north and north-west of Australia first by a sequence of light variable winds and then by the north-west monsoon. In Australia, the north-west monsoon has not the persistence or regularity of the Indian south-west monsoon, but is sufficiently characteristic for the summer in the north of Australia to be called the “North-west Season”. In central and eastern Queensland, the north-west monsoon in the summer has comparatively little effect, and the trade winds, though weakened, are still dominant winds. With the movement of the sun northward in the autumn, the north-west monsoon is replaced first by light variable winds and then by the trade winds.

Further particulars of Australian wind conditions and meteorology will be found in Official Year Book No. 38, pages 58–61. Reference should also be made to the wind rose diagrams on pages 43 and 44.

(iii) *Cyclones and Storms.* The “elements” in Australia are ordinarily peaceful, and while destructive cyclones have visited various parts, more especially coastal areas, such visitations are rare, and may be properly described as erratic.

During the winter months, the southern shores of the continent are subject to deep depressions of the southern low-pressure belt. They are felt most severely over the south-western parts of Western Australia, to the south-east of South Australia, in Bass Strait, along the coastline of Victoria, and on the west coast of Tasmania. Apparently the more violent wind pressures from these disturbances are experienced in their northern half, or in that part of them which has a north-westerly to a south-westerly circulation.

The north-east coast of Queensland is occasionally visited by hurricanes from the north-east tropics. During the first four months of the year, these hurricanes appear to have their origin in the neighbourhood of the South Pacific Islands, their path being a parabolic curve first to the south-west and finally towards the south-east.

Very severe cyclones, locally known as “willy willies”, are peculiar to the north-west coast of Western Australia from the months of November to April, inclusive. They usually originate over the ocean to the north or north-west of Australia, and travel in a south-westerly direction with continually increasing force, displaying their greatest energy near Cossack and Onslow, between latitudes 20° and 22° South. The winds in these storms, like those from the north-east tropics, are very violent and destructive. The greatest velocities are usually to be found in the south-eastern quadrant of the cyclones, with north-east to east winds. After leaving the north-west coast, these storms either travel southwards, following the coast-line, or cross the continent to the Great Australian Bight. When they take the latter course, their track is marked by torrential rains, as much as 29.41 inches, for example, being recorded in 24 hours at Whim Creek from one such occurrence. Falls of 10 inches and over have frequently been recorded in the northern interior of Western Australia from similar storms.

Some further notes on severe cyclones and on "southerly bursters", a characteristic feature of the eastern part of Australia, appeared in early issues of the *Official Year Book* (see No. 6, pp. 84-86), and a special article dealing with "Australian Hurricanes and Related Storms" appeared in *Official Year Book* No. 16, pages 80-84.

Depressions vary considerably in their isobaric forms, intensity and other characteristics. Some bring rain in variable quantities, some heat and others mainly wind. A common type in southern Australia is the "v" shaped trough with an abrupt "backing" of the wind or "line squall" as it passes. The cold front is most frequently found through the centre of the "trough", because it is along this line, and extending into the upper levels of the atmosphere, that the demarcation of different air masses is so well defined. The best rains in inland Australia occur when extensive masses of warm moist tropical air move into the interior, and are forced to rise by convergence of flow or by impact with a cold air stream.

The speed of low pressure systems is very variable, but in general in southern latitudes the movement is of the order of 500 to 700 miles a day.

**12. Influences affecting Australian Climate.**—(i) *General.* Australian history does not cover a sufficient period, nor is the country sufficiently occupied, to ascertain whether or not the advance of settlement has materially affected the climate as a whole. Local changes have, however, taken place, a fact which suggests that settlement and the treatment of the land have a distinct effect on local conditions. For example, low-lying lands on the north coast of New South Wales, which originally were seldom subject to frosts, have, with the deforestation of the surrounding hills, experienced annual visitations, the probable explanation being that through the absence of trees the cold air of the highlands now flows unchecked and untempered down the sides of the hills to the valleys and lower lands.

(ii) *Influence of Forests on Climate.* Since forests doubtless exercise a great influence on local climate, it follows that, to the extent that forestal undertakings will allow, the weather can be controlled by human agency. The direct action of forests is an equalizing one; thus, especially in equatorial regions, and during the warmest portion of the year, they reduce considerably the mean temperature of the air. They also reduce the diurnal extremes of shade temperatures by altering the extent of radiating surface by evaporation, and by checking the movement of air, and while decreasing evaporation from the ground, they increase the relative humidity. Vegetation greatly diminishes the rate of flow-off of rain and the washing away of surface soil, and when a region is protected by trees a steadier water supply is ensured, and the rainfall is better conserved. In regions of snowfall, the supply of water to rivers is similarly regulated, and, without this and the sheltering influence of ravines and gullies, watercourses supplied mainly by melting snow would be subject to alternate periods of flooding and dryness. This is borne out in the case of the inland rivers, the River Murray, for example, which has never been known to become dry, deriving its steadiness of flow mainly through the causes indicated.

(iii) *Direct Influence of Forests on Rainfall.* Whether forests have a direct influence on rainfall is a debatable question, some authorities alleging that precipitation is undoubtedly induced by forests, while others take the opposite view.

Sufficient evidence exists, however, to prove that, even if the rainfall is not increased, the beneficial climatic effect of forest lands more than warrants their protection and extension. Rapid rate of evaporation, induced by both hot and cold winds, injures crops and makes life uncomfortable on the plains, and, while it may be doubted that the forest aids in increasing precipitation, it must be admitted that it does check winds and the rapid evaporation due to them. Trees as wind-breaks have been successfully planted in central parts of the United States of America, and there is no reason why similar experiments should not be successful in many parts of the treeless interior of Australia. The belts should be planted at right angles to the direction of the prevailing parching winds, and if not more than half a mile apart will afford shelter to the enclosed areas.

**13. Rainfall and Temperatures, Various Cities.**—*Official Year Book* No. 34, page 28, shows rainfall and temperature, and No. 38, page 42, temperature, for various important cities throughout the world and for the Australian capitals.

**14. Climatological Tables.**—The averages and extremes for a number of climatological elements, which have been determined from long series of observations at the Australian capitals up to and including the year 1961, are given on the following eight pages.

NOTE.—The following points apply throughout.

- (a) Where records are available, mean or average values have been calculated on a standard period of 30 years from 1911 to 1940.
- (b) Extreme values have been extracted from all available years of actual record, but the number of years quoted does not include intervening periods when observations were temporarily discontinued.

**CLIMATOLOGICAL DATA: PERTH, WESTERN AUSTRALIA**  
(LAT. 31° 57' S., LONG. 115° 51' E. HEIGHT ABOVE M.S.L. 210 FT.)  
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days

Month	Bar. corrected to 32° F. m. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 71 feet)				Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of cloud, 9 a.m., 3 p.m., 9 p.m. (a)	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction				
No. of years of observations..	30(b)	30(b)	64	49	30(b)	30(b)	30(b)	30(b)	30(b)
January ..	29.897	10.9	26.3 27/98	48	E	SSW	10.37	2	2.9
February ..	29.922	10.7	21.5 6/08	54	ENE	SSW	8.63	2	3.1
March ..	29.976	10.1	21.5 6/13	70	E	SSW	7.52	2	3.5
April ..	30.071	8.5	31.5 25/00	63	ENE	SSW	4.62	2	4.2
May ..	30.062	8.4	27.3 29/32	68	NE	WSW	2.80	3	5.4
June ..	30.068	8.4	30.2 17/27	80	N	NW	1.82	2	5.9
July ..	30.082	8.8	33.5 20/26	77	NNE	W	1.76	2	5.6
August ..	30.084	9.4	31.9 15/03	78	N	WNW	2.37	2	5.6
September ..	30.073	9.4	28.5 11/05	68	ENE	SSW	3.44	1	4.9
October ..	30.033	10.0	26.7 6/16	65	SE	SW	5.38	1	4.8
November ..	29.989	10.7	25.7 18/97	63	E	SW	7.65	2	3.9
December ..	29.923	11.0	25.6 6/22	64	E	SSW	9.69	2	3.2
Year { Totals ..	—	—	—	—	—	—	66.05	23	—
Year { Averages ..	30.015	9.7	—	—	E	SSW	—	—	4.4
Year { Extremes ..	—	—	33.5 20/7/26	80	—	—	—	—	—

(a) Scale 0-10.

(b) Standard 30 years' normal (1911-1940).

## Temperature and Sunshine

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends..	30(a)	30(a)	30(a)	65	65	65	61	63	30(a)
January ..	84.6	63.3	73.9	110.7 29/56	48.6 20/25	62.1	177.3 22/14	39.5 20/15	10.4
February ..	85.1	63.5	74.3	112.2 8/33	47.7 1/02	64.5	173.7 4/34	39.8 1/13	9.8
March ..	81.3	61.5	71.4	106.4 14/22	45.8 8/03	60.6	167.0 19/18	36.7 8/03	8.8
April ..	76.3	57.4	66.8	99.7 9/10	39.3 20/14	60.4	157.0 8/16	31.0 20/14	7.5
May ..	69.0	52.8	60.9	90.4 2/07	34.3 11/14	56.1	146.0 4/25	25.3 11/14	5.7
June ..	64.4	49.8	57.1	81.7 2/14	34.9 22/55	46.8	135.5 9/14	25.9 27/46	4.8
July ..	62.8	48.0	55.4	76.4 21/21	34.2 7/16	42.2	133.2 13/15	25.1 30/20	5.4
August ..	63.8	48.4	56.1	82.0 21/40	35.4 31/08	46.6	145.1 29/21	26.7 24/35	6.0
September ..	66.8	50.4	58.6	90.9 30/18	36.7 6/56	54.2	153.6 29/16	27.2 (b)	7.2
October ..	69.7	52.6	61.1	99.0 26/61	40.0 16/31	59.0	161.2 19/54	29.8 16/31	8.1
November ..	76.7	57.3	67.0	104.6 24/13	42.0 1/04	62.6	167.0 30/25	35.0 3/47	9.6
December ..	81.2	60.9	71.0	107.9 20/04	47.5 29/57	60.4	168.8 11/27	38.0 29/57	10.4
Year { Averages ..	73.5	55.5	64.5	—	—	—	—	—	7.8
Year { Extremes ..	—	—	—	112.2 8/2/33	34.2 7/7/16	78.0	177.3 22/1/14	25.1 30/7/20	—

(a) Standard 30 years' normal (1911-1940).

(b) 8/1952 and 6/1956.

## Humidity, Rainfall and Fog

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog	
		Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No. of days of rain	Greatest monthly	Least monthly		Greatest in one day
No. of years over which observation extends	30(a)	30(a)	62	62	30(a)	30(a)	86	86	86	30(a)	
January ..	0.438	51	63	41	0.33	3	2.17 1879	Nil (b)	1.74 27/79	0	
February ..	0.434	51	65	43	0.50	3	6.55 1955	Nil (b)	3.43 17/55	0	
March ..	0.432	57	66	46	0.90	5	5.71 1934	Nil (b)	3.03 9/34	0	
April ..	0.397	61	73	51	1.75	8	5.85 1926	Nil 1920	2.62 30/04	1	
May ..	0.365	70	81	61	5.14	15	12.13 1879	0.77 1949	3.00 17/42	2	
June ..	0.337	75	83	68	7.55	17	18.75 1945	2.16 1877	3.90 10/20	2	
July ..	0.322	76	84	69	7.08	19	16.73 1958	2.42 1876	3.00 4/91	2	
August ..	0.316	71	83	62	5.78	19	12.53 1945	0.46 1902	2.91 14/45	1	
September ..	0.341	66	75	58	3.37	15	7.84 1923	0.34 1916	1.82 4/31	0	
October ..	0.345	60	75	52	2.30	12	7.87 1890	0.15 1946	1.73 3/33	0	
November ..	0.374	52	63	41	0.75	7	2.78 1916	Nil 1891	1.54 29/56	0	
December ..	0.409	51	63	44	0.54	5	3.17 1951	Nil (b)	1.84 3/51	0	
Year { Totals ..	—	—	—	—	35.99	128	—	—	—	8	
Year { Averages ..	0.370	62	—	—	—	—	—	—	—	—	
Year { Extremes ..	—	—	84	41	—	—	18.75 6/1945	Nil(c)	3.90 10/6/20	—	

(a) Standard 30 years' normal (1911-1940).

(b) Various years.

(c) November to April, various years.

Dates in italics relate to nineteenth century.



## CLIMATOLOGICAL DATA: DARWIN, NORTHERN TERRITORY

(LAT. 12° 28' S., LONG. 130° 51' E. HEIGHT ABOVE M.S.L. 97 Ft.)

Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days

Month	Bar. corrected to 32° F. mn. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind			Prevailing direction		Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m. (c)	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	9 a.m.	3 p.m.				
No. of years of observations..	30	14	—	11(b)	—	—	—	30	30	30
January ..	29.706	6.1	—	66	NW & S	W & NW	—	16	7.1	1
February ..	29.728	6.7	—	54	W & S	W & NW	—	16	7.0	1
March ..	29.751	5.3	—	98	SE	W & NW	—	14	6.2	3
April ..	29.809	6.1	—	42	SE	E	—	6	3.5	11
May ..	29.859	6.5	—	37	SE	E	—	1	2.1	19
June ..	29.892	6.5	—	37	SE	E & SE	—	0	1.6	22
July ..	29.911	6.2	—	36	SE	E & SE	—	0	1.4	23
August ..	29.914	5.9	—	35	SE	NW & N	—	0	1.3	23
September ..	29.886	6.2	—	36	SE & S	NW & N	—	1	2.0	18
October ..	29.850	6.2	—	46	S	NW & N	—	8	3.2	10
November ..	29.797	5.5	—	57	W & S	NW & N	—	17	4.8	4
December ..	29.738	6.2	—	66	NW & S	NW & N	—	17	6.0	2
Year { Totals	—	—	—	—	—	—	—	96	—	137
Averages	29.820	6.1	—	—	SE	NW	—	—	3.9	—
Extremes	—	—	—	98	—	—	—	—	—	—

(a) Scale 0-10.

(b) No records 1943 to 1958 inclusive.

## Temperature and Sunshine

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends..	30	30	30	81(a)	81(a)	—	25	—	—
January ..	89.9	77.3	83.6	100.0	2/82	68.8	16/59	168.0	26/42
February ..	89.8	77.1	83.4	100.9	20/87	63.0	25/49	163.6	23/38
March ..	90.2	77.1	83.6	102.0	(b)	66.6	31/45	165.6	23/38
April ..	91.9	75.9	83.9	104.0	7/83	60.8	11/43	163.0	1/38
May ..	90.9	72.6	81.4	102.3	8/84	59.2	8/49	160.0	5/20
June ..	87.5	69.5	78.5	98.6	17/37	55.3	18/49	155.2	2/16
July ..	86.6	67.8	77.2	98.0	17/88	50.7	29/42	156.0	28/17
August ..	88.5	69.7	79.1	98.0	19/00	57.0	16/57	156.2	28/16
September ..	91.0	73.9	82.5	102.0	20/82	63.0	(c)	157.0	(d)
October ..	92.6	77.2	84.9	104.9	17/92	68.5	26/45	160.5	30/38
November ..	93.2	78.2	85.7	103.3	9/84	66.8	4/50	170.4	14/37
December ..	92.0	78.1	85.0	102.0	9/83	68.5	24/41	169.0	26/23
Year { Averages	90.3	74.5	82.4	—	—	—	—	—	—
Extremes	—	—	—	104.9	50.7	29/7/42	170.4	—	—
				17/10/1892			14/11/37		

(a) Years 1882-1941 at Post Office, 1942-61 at aerodrome; sites not strictly comparable.

(b) 26/1883 and 27/1883.

(c) 15/1883, 1/1906 and 7/1958.

(d) 28/1916 and 3/1921.

## Humidity, Rainfall and Fog

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog
		Mean	Highest mean	Lowest mean	Mean monthly	Mean No. of days of rain	Greatest monthly	Least monthly	Greatest in one day	
No. of years over which observation extends	57	57	57	57	30	21	93	93	93	30
January ..	0.925	78	89	69	16.18	20	27.86	1906	11.67	7/97
February ..	0.920	79	88	71	12.37	18	25.74	1955	5.25	15/49
March ..	0.912	78	84	69	11.18	17	21.88	1898	7.18	6/19
April ..	0.800	69	80	60	3.08	6	23.74	1891	6.62	4/59
May ..	0.652	63	76	49	0.33	1	14.00	1953	2.19	6/22
June ..	0.545	61	75	52	0.09	1	1.53	1902	1.32	10/02
July ..	0.522	59	71	47	0.01	0	2.56	1900	1.71	2/00
August ..	0.613	63	73	53	0.02	0	3.00	1870	1.06	14/09
September ..	0.732	65	73	54	0.60	2	2.72	1950	2.00	26/50
October ..	0.832	65	72	60	1.93	5	13.34	1954	3.74	18/56
November ..	0.868	68	75	62	4.32	10	15.72	1938	4.73	9/51
December ..	0.890	73	83	65	8.57	15	22.38	1910	7.87	28/10
Year { Totals	—	—	—	—	58.68	95	—	—	—	2.4
Averages	0.764	68	—	—	—	—	—	—	—	—
Extremes	—	89	47	—	—	—	27.86	1/06	Nil (b)	11.67

(a) Various years.

(b) April to October, various years.

Dates in italics relate to nineteenth century.

**CLIMATOLOGICAL DATA: ADELAIDE, SOUTH AUSTRALIA**  
(LAT. 34° 56' S., LONG. 138° 35' E. HEIGHT ABOVE M.S.L. 140 Ft.)  
**Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days**

Month	Bar. corrected to 32° F. min. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 75 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m. (d)	No. of clear days	
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction						
					9 a.m.	3 p.m.					
No. of years of observations ..	30(b)	30(b)	74	45	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)	
January ..	29.917	9.9	31.6 19/99	72	SW	SW	9.27	2.3	3.6	12.9	
February ..	29.953	8.8	28.8 22/96	66	NE	SW	7.56	2.0	3.7	11.2	
March ..	30.037	8.3	26.2 9/12	78	S	SW	6.39	1.8	4.0	10.6	
April ..	30.119	8.0	32.2 10/96	81	NE	SW	3.78	1.5	5.2	7.2	
May ..	30.131	8.1	31.7 9/80	70	NE	NW	2.27	1.3	5.8	4.9	
June ..	30.119	8.3	31.3 12/78	67	NE	N	1.37	1.3	6.1	4.1	
July ..	30.111	8.5	28.1 25/82	60	NE	NW	1.34	1.5	6.0	4.3	
August ..	30.084	9.2	32.2 31/97	62	NE	SW	1.99	2.0	5.5	5.6	
September ..	30.050	9.2	30.0 2/87	69	NNE	SW	3.05	2.0	5.3	5.8	
October ..	30.007	9.8	32.0 28/98	75	NNE	SW	5.03	2.8	5.3	5.7	
November ..	29.990	9.9	32.2 7/48	79	SW	SW	6.89	3.3	4.9	7.2	
December ..	29.922	9.9	28.1 12/91	75	SW	SW	8.74	2.2	4.2	9.5	
Year {	Totals ..	—	—	—	—	—	57.68	24.0	—	89.0	
	Averages	30.037	9.0	—	—	NE	SW	—	—	5.0	—
	Extremes	—	—	32.2 (c)	81	—	—	—	—	—	—

(a) Scale 0-10.

(b) Standard 30 years' normal (1911-1940).

(c) 10/4/1896, 31/8/1897 and 7/11/1948.

**Temperature and Sunshine**

Temperature and Sunshine									
Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends. .	30(a)	30(a)	30(a)	105	105	105	54(b)	101	30(a)
January . . . . .	84.8	61.0	72.9	117.7 12/39	45.1 21/84	72.6	180.0 18/82	36.5 14/79	10.0
February . . . . .	85.7	61.8	73.7	113.6 12/99	45.5 23/18	68.1	170.5 10/00	35.8 23/26	9.3
March . . . . .	81.3	59.1	70.2	110.5 9/34	43.9 21/33	66.6	174.0 17/83	32.1 21/33	7.9
April . . . . .	73.0	54.4	63.7	98.6 5/38	39.6 15/59	59.0	155.0 1/83	30.2 16/17	6.0
May . . . . .	66.8	50.8	58.8	89.5 4/21	36.9 (c)	52.6	148.2 12/79	25.6 19/28	4.8
June . . . . .	61.0	46.6	53.8	78.1 4/57	32.5 (d)	45.6	138.8 18/79	21.0 24/44	4.2
July . . . . .	59.9	45.4	52.7	74.0 11/06	32.0 24/08	42.0	134.5 26/90	22.1 30/29	4.3
August . . . . .	62.3	46.2	54.3	85.0 31/11	32.3 17/59	52.7	140.0 31/92	22.8 11/29	5.4
September . . . . .	66.8	48.3	57.5	95.1 30/61	32.7 4/58	62.4	160.5 23/82	25.0 25/27	6.3
October . . . . .	72.5	51.7	62.1	102.9 21/22	36.1 20/58	66.8	162.0 30/21	27.8 (e)	7.3
November . . . . .	78.1	55.6	66.7	113.5 21/65	40.8 2/09	72.7	166.9 20/78	31.5 2/09	8.6
December . . . . .	82.6	58.9	70.7	114.6 29/31	43.0 (f)	71.6	175.7 7/99	32.5 4/84	9.5
Year { Averages	72.9	53.3	63.1						7.0
Year { Extremes	—	—	—	117.7 12/13/99	32.0 24/7/08	85.7	180.0 18/1/1882	21.0 24/6/44	—

(a) Standard 30 years' normal (1911-1940).

(b) Records incomplete, 1931-34. Discontinued, 1934.

(c) 22/1895 and 24/1904.

(d) 27/1876 and 24/1944.

(e) 4/1931 and 2/1918.

(f) 4/1906 and 16/1861.

**Humidity, Rainfall and Fog**

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)							Fog		
		Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No. of days of rain	Greatest monthly		Least monthly			Greatest in one day	Mean No. of days of fog
No. of years over which observation extends	30(a)	30(a)	94	94	30(a)	30(a)	123		123		123		30(a)	
January ..	0.327	39	59	29	0.76	5	3.31	1941	Nil	(b)	2.30	2/89	0.0	
February ..	0.352	41	57	30	1.10	5	6.09	1925	Nil	(b)	5.57	7/25	0.0	
March ..	0.332	44	58	29	0.87	5	4.59	1878	Nil	(b)	3.50	5/78	0.0	
April ..	0.329	55	72	37	1.45	10	5.81	1938	Nil	1945	3.15	5/60	0.0	
May ..	0.313	64	76	49	2.49	13	7.75	1875	0.10	1934	2.75	1/53	0.6	
June ..	0.294	75	84	63	2.93	15	8.58	1916	0.23	1958	2.11	1/20	1.1	
July ..	0.282	75	87	66	2.49	16	5.44	1890	0.39	1899	1.75	10/65	1.4	
August ..	0.282	68	78	54	2.58	16	6.20	1852	0.33	1944	2.23	19/51	0.4	
September ..	0.289	59	72	44	2.39	13	5.83	1923	0.27	1951	1.59	20/23	0.2	
October ..	0.287	48	67	29	1.54	10	5.24	1949	0.17	1914	2.24	16/08	0.0	
November ..	0.292	41	58	31	1.22	8	4.45	1839	0.08	1922	2.96	12/60	0.0	
December ..	0.322	40	56	31	1.27	6	3.98	1861	Nil	1904	2.42	23/13	0.0	
Year { Totals ..	—	—	—	—	21.09	122	—		—		—		3.7	
Year { Averages ..	0.304	52	—	—	—	—	8.58 6/1916		Nil (c)		5.57 7/2/25		—	
Year { Extremes ..	—	—	87	29	—	—	—		—		—		—	

(a) Standard 30 years' normal (1911-1940).

(b) Various years.

(c) December to April, various years.

Dates in italics relate to nineteenth century.

**CLIMATOLOGICAL DATA: BRISBANE, QUEENSLAND**  
(LAT. 27° 28' S., LONG. 153° 2' E. HEIGHT ABOVE M.S.L. 134 Ft.)  
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days

Wind (Height of anemometer 105 feet)										
Month	Bar. corrected to 32° F. mn. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction		Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(a)	No. of clear days
					9 a.m.	3 p.m.				
No. of years of observations..	30(b)	30(b)	47	47	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)
January ..	29.865	6.8	19.7 23/47	58	SE	NE	6.74	9.8	5.7	3.5
February ..	29.912	7.0	23.2 21/54	67	SE	NE	5.49	6.5	5.6	2.4
March ..	29.975	6.5	20.3 1/29	65	S	E	5.05	5.9	5.1	5.4
April ..	30.035	5.9	16.7 3/25	64	S	E	4.05	5.0	4.3	7.8
May ..	30.083	5.8	17.9 17/26	49	SW	SE	3.09	4.1	4.3	8.3
June ..	30.091	5.7	19.0 14/28	58	SW	W & SW	2.45	2.9	4.4	9.2
July ..	30.090	5.6	22.0 13/54	67	SW	W & SW	2.69	2.8	3.8	12.4
August ..	30.105	5.8	14.8 4/35	56	SW	NE	3.51	3.8	3.1	13.1
September ..	30.067	5.9	16.1 1/48	63	SW	NE	4.51	5.8	3.3	13.0
October ..	30.019	6.3	15.7 1/41	62	S	NE	5.81	7.1	4.2	8.5
November ..	29.958	6.7	15.5 10/28	62	SE & N	NE	6.32	9.5	4.9	5.9
December ..	29.890	7.0	19.5 15/26	79	SE	NE	7.02	10.6	5.3	3.8
Year { Totals ..	30.007	6.3	—	—	—	—	56.73	73.8	—	93.3
Extremes	—	—	23.2 21/2/54	79	—	—	—	—	4.5	—

(a) Scale 0-10.

(b) Standard 30 years' normal (1911-1940).

**Temperature and Sunshine**

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends . .	30(a)	30(a)	30(a)	75	75	75	50(b)	74	30(a)
January .. .. .	85.5	69.1	77.3	109.8 26/40	58.8 4/93	51.0	169.0 2/37	49.9 4/93	7.6
February .. .. .	84.6	68.7	76.6	105.7 21/25	58.5 23/31	47.2	165.2 6/10	49.1 22/31	7.4
March .. .. .	82.3	66.2	74.3	99.4 5/19	52.4 29/13	47.0	162.5 6/39	45.4 29/13	7.0
April .. .. .	79.1	61.5	70.3	95.2 (c)	44.4 25/25	50.8	153.8 11/16	36.7 24/25	7.1
May .. .. .	73.7	55.6	64.7	90.3 21/23	40.6 30/51	49.7	147.0 1/10	29.8 8/97	6.6
June .. .. .	69.4	51.5	60.5	88.9 19/18	36.3 29/08	52.6	136.0 3/18	25.4 23/88	6.3
July .. .. .	68.6	49.4	59.0	84.3 23/46	36.1 (d)	48.2	146.1 20/15	23.9 11/90	6.8
August .. .. .	71.1	50.0	60.6	91.0 14/46	37.4 6/87	53.6	141.9 20/17	27.1 9/99	7.9
September .. .. .	75.5	54.8	65.1	100.9 22/43	40.7 1/96	60.2	155.5 26/03	30.4 1/89	8.2
October .. .. .	79.2	60.3	69.8	105.3 30/58	43.3 3/99	62.0	157.4 31/18	34.9 8/89	8.4
November .. .. .	82.3	64.6	73.4	106.1 18/13	48.5 2/05	57.6	162.3 7/89	38.8 1/05	8.2
December .. .. .	84.5	67.5	76.0	105.9 26/93	56.3 5/55	49.6	165.9 28/42	49.1 3/94	8.2
Year { Averages	78.0	59.9	69.0	—	—	—	—	—	7.5
Extremes	—	—	—	109.8 26/1/40	36.1 (d)	73.7	169.0 2/1/37 23.9 11/7/1890	—	—

(a) Standard 30 years' normal (1911-1940).

(b) From 1887 to March, 1947, excluding 1927 to 1936.

(c) 9/1896 and 5/1903.

(d) 12/7/1894 and 2/7/1896.

**Humidity, Rainfall and Fog**

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)						Fog
		Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No. of days of rain	Greatest monthly	Least monthly	Greatest in one day	
No. of years over which observation extends	30(a)	30(a)	75	75	30(a)	30(a)	110	110(b)	110	30(a)	
January ..	0.636	66	79	53	5.72	12	27.72 1895	0.32 1919	18.31 21/87	0.6	
February ..	0.644	69	82	55	5.47	12	40.39 1893	0.58 1849	10.61 6/31	0.9	
March ..	0.606	72	85	56	4.97	14	34.04 1870	Nil 1849	11.18 14/08	1.6	
April ..	0.512	71	80	56	3.68	11	15.28 1867	0.04 1944	5.46 5/33	4.0	
May ..	0.420	71	85	59	2.35	9	13.85 1876	Nil 1846	5.62 9/79	5.4	
June ..	0.357	73	84	54	2.75	8	14.03 1873	Nil 1847	6.41 15/48	4.5	
July ..	0.331	71	88	53	1.88	8	8.60 1950	Nil 1841	3.54 (c)	4.9	
August ..	0.338	67	80	53	1.07	7	14.67 1879	Nil (d)	4.89 12/87	5.9	
September ..	0.396	62	76	47	1.69	7	5.43 1886	0.10 1907	2.46 2/94	2.8	
October ..	0.459	59	72	48	2.27	8	11.41 1949	0.03 1948	5.34 25/49	1.6	
November ..	0.533	61	73	45	4.00	10	12.40 1917	Nil 1842	4.46 16/86	0.7	
December ..	0.589	62	70	51	4.24	11	17.36 1942	0.35 1865	6.60 28/71	0.4	
Year { Totals ..	—	—	—	—	40.09	117	—	—	—	33.3	
Averages	0.485	67	—	—	—	—	—	—	—	—	
Extremes	—	—	88	45	—	—	40.39 2/1893 Nil	(e)	18.31 21/1/1887	—	

(a) Standard 30 years' normal (1911-1940).

(b) Records incomplete for various years between 1846 and 1859.

(c) 15/1876 and 16/1889.

(d) 1862, 1869 and 1880.

(e) Various months in various years.

Dates in italics relate to nineteenth century.

**CLIMATOLOGICAL DATA: SYDNEY, NEW SOUTH WALES**  
(LAT. 33° 52' S., LONG. 151° 12' E. HEIGHT ABOVE M.S.L. 138 Ft.)  
**Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days**

Month	No. of years of observations..	Bar. corrected to 32° F., mm. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 58 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m. to 3 p.m., 9 p.m.(g)	No. of clear days
			Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction					
						9 a.m.	3 p.m.				
		30(b)	26(c)	48(d)	45(e)	26(c)	26(c)	26(c)	30(f)	30(b)	30(b)
January	29.875	8.9	24.9	2/22	93	S	ENE	5.71	4.8	5.7	4.8
February	29.942	8.1	20.1	14/18	63	NE	ENE	4.68	3.3	5.5	5.4
March	30.009	7.5	20.7	10/44	58	W	ENE	4.05	2.8	5.3	5.8
April	30.063	7.0	23.4	19/27	72	W	NE	2.91	2.4	5.0	7.0
May	30.098	6.8	21.1	18/55	63	W	S	2.17	1.6	4.9	7.4
June	30.078	7.1	22.4	10/47	84	W	W	1.61	1.5	4.8	8.3
July	30.070	7.2	26.6	6/31	68	W	W	1.69	1.1	4.5	10.1
August	30.060	7.4	24.6	9/51	68	W	NE	2.30	2.1	3.9	11.1
September	30.018	8.0	22.3	19/17	70	W	NE	3.00	3.0	4.2	10.0
October	29.976	8.2	24.5	1/57	95	W	ENE	4.17	3.9	4.9	7.4
November	29.935	8.5	22.5	14/30	71	W & E	ENE	4.97	4.5	5.5	5.7
December	29.881	8.9	25.0	10/20	75	S	ENE	5.64	5.4	5.8	4.8
Year	Totals	—	—	—	—	—	—	42.90	36.4	—	87.8
	Averages	30.000	7.8	—	—	W	NE	—	—	5.0	—
	Extremes	—	—	26.6	6/7/31	95	—	—	—	—	—

(a) Scale 0-10.

(b) Standard 30 years' normal (1911-1940).

(c) 1915-1940.

(d) 1914-1961.

(e) 1917-1961.

(f) 1921-1950.

**Temperature and Sunshine**

Month	Mean tempera- ture (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunrise				
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass					
No. of years over which observation extends . .	30(a)	30(a)	30(a)	103	103	103	84	103	30(b)				
January .. ..	78.6	65.1	71.8	113.6	14/39	51.1	18/49	62.5	164.3	26/15	43.7	6/25	7.5
February .. ..	78.7	65.5	72.1	107.8	8/26	49.3	28/63	58.5	168.3	14/39	42.8	22/33	7.0
March .. ..	76.6	62.9	69.8	102.6	3/69	48.8	14/86	53.8	158.3	10/26	39.9	17/13	6.4
April .. ..	72.0	57.7	64.9	91.4	1/36	44.6	27/64	46.8	144.1	10/77	33.3	24/09	6.1
May .. ..	67.0	52.4	59.7	86.0	1/19	40.2	22/59	45.8	129.7	1/96	29.3	25/17	5.7
June .. ..	62.8	48.1	55.5	80.4	11/31	35.7	22/32	44.7	125.5	2/23	28.0	22/32	5.3
July .. ..	61.8	46.4	54.1	78.3	22/26	35.9	12/90	42.4	124.7	19/77	24.0	4/93	6.1
August .. ..	64.3	47.6	56.0	86.8	24/54	36.8	3/72	50.0	149.0	30/78	26.1	4/09	7.0
September ..	68.3	51.4	59.9	92.3	27/19	40.8	2/45	51.5	142.2	12/78	30.1	17/05	7.3
October .. ..	71.7	55.9	63.8	99.4	4/42	42.2	6/27	57.2	152.2	20/33	32.7	9/05	7.5
November ..	74.5	59.8	67.1	104.5	6/46	45.8	1/05	58.7	158.5	28/99	36.0	6/06	7.5
December ..	76.9	63.2	70.1	108.0	20/57	48.4	3/24	59.6	164.5	27/89	41.4	3/24	7.5
Year { Averages ..	71.1	56.3	63.7	—	—	—	—	—	—	—	—	—	6.8
Year { Extremes ..	—	—	—	113.6	14/1/39	35.7	22/6/32	77.9	168.3	14/2/39	24.0	4/7/1893	—

(a) Standard 30 years' normal (1911-1940).

(b) 1921-1950 (different exposure prior to 1921).

**Humidity, Rainfall and Fog**

Month	Vapour pressure (inches)	Ref. hum. (%) at 9 a.m.			Rainfall (inches)							Fog	
		Mean 9 a.m.	Highest mean	Lowest mean	Mean monthly	Mean No. of days of rain	Greatest monthly		Least monthly	Greatest in one day	Mean No. of days of fog		
No. of years over which observation extends	30(a)	30(a)	80	80	30(a)	30(a)	103		103	103	30(b)		
January ..	0.537	65	78	58	3.86	13	15.26	1911	0.25	1932	7.08	13/11	0.4
February ..	0.560	68	81	60	3.15	12	22.22	1956	0.12	1939	8.90	25/73	0.8
March ..	0.527	71	85	62	4.44	13	20.52	1942	0.42	1876	11.05	28/42	1.8
April ..	0.441	73	87	63	5.65	14	24.49	1861	0.06	1868	7.52	29/60	2.8
May ..	0.362	75	90	63	4.98	12	23.03	1919	0.14	1957	8.36	28/89	3.7
June ..	0.303	76	89	63	3.68	11	25.30	1950	0.19	1904	5.17	16/84	3.3
July ..	0.282	74	88	63	4.89	12	13.23	1950	0.10	1946	7.80	7/31	2.9
August ..	0.288	68	84	54	2.41	10	14.89	1899	0.04	1885	5.33	2/60	2.3
September ..	0.325	62	79	49	2.77	11	14.05	1879	0.08	1882	5.69	10/79	1.0
October ..	0.378	60	77	46	2.80	11	11.13	(c)	0.21	1867	6.37	13/02	0.6
November ..	0.433	60	79	42	2.54	11	20.36	1961	0.07	1915	5.24	27/55	0.6
December ..	0.501	63	77	51	3.63	13	15.82	1920	0.23	1913	4.75	13/10	0.4
Year { Totals ..	—	—	—	—	44.80	143	—		—		—		20.6
Year { Averages ..	0.393	68	—	—	—	—	25.30 6/1950		0.04 8/1885		11.05 28/3/42		—
Year { Extremes ..	—	—	90	42	—	—	—		—		—		—

(a) Standard 30 years' normal (1911-1940).

(b) 1921-1950.

(c) 1916 and 1959.

Dates in italics relate to nineteenth century.

**CLIMATOLOGICAL DATA: CANBERRA, AUSTRALIAN CAPITAL TERRITORY**  
(LAT. 35° 18' S., LONG. 149° 6' E. HEIGHT ABOVE M.S.L., 1,906 Ft.)  
**Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days**

Month	Bar. corrected to 32° F. m.n. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 20 feet)				Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., and 3 p.m. (d)	No. of clear days	
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction					
					9 a.m.					3 p.m.
No. of years of observations..	26	27	32	23(b)	27	27	28	20	26	27
January ..	29.856	4.7	14.9 23/33	65	NW	NW	8.31	1.5	4.9	7.3
February ..	29.900	4.2	15.3 24/33	64	E	NW	6.42	2.3	5.1	6.3
March ..	30.009	3.7	18.2 28/42	52	E	NW	5.20	0.2	5.1	6.9
April ..	30.059	3.6	18.6 8/45	52	NW	NW	3.28	0.3	5.4	4.7
May ..	30.126	3.0	13.2 27/58	64	NW	NW	1.95	0.2	5.6	5.8
June ..	30.120	3.6	16.1 2/30	60	NW	NW	1.29	0.1	6.0	4.5
July ..	30.133	3.4	23.4 7/31	62	NW	NW	1.27	0.0	5.7	5.6
August ..	30.065	4.1	15.7 25/36	59	NW	NW	1.81	0.1	5.4	5.7
September ..	30.057	4.2	17.4 28/34	61	NW	NW	2.87	0.4	5.1	6.1
October ..	29.954	4.3	14.7 12/57	74	NW	NW	4.43	1.0	5.4	5.2
November ..	29.885	4.7	17.2 28/42	66	NW	NW	5.87	1.1	5.5	4.5
December ..	29.834	4.7	16.1 11/38	66	NW	NW	7.64	0.7	5.0	6.3
Year { Totals ..	30.000	—	—	—	—	—	50.34	7.9	—	68.9
Averages	—	4.0	—	—	NW	NW	—	—	5.3	—
Extremes	—	—	23.4 7/7/31	74	—	—	—	—	—	—

(a) Scale 0-10.

(b) 1939 to 1961.

**Temperature and Sunshine**

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends..	29	29	29	34	34	34	(a)	34	27
January .. ..	82.4	56.0	69.2	107.4 11/39	38.0 1/56	69.4	—	30.1 10/50	8.4
February .. ..	80.7	56.6	68.4	99.8 13/33	35.0 (b)	64.8	—	26.5 23/43	7.3
March .. ..	76.2	52.7	64.4	99.8 1/38	34.8 31/49	64.3	—	26.4 26/35	7.2
April .. ..	66.7	45.5	56.1	89.7 6/38	29.0 29/34	60.7	—	19.0 18/44	6.7
May .. ..	59.3	39.1	49.2	72.6 1/36	22.5 (c)	50.1	—	15.6 (d)	5.2
June .. ..	52.6	35.7	44.1	64.9 1/54	18.1 20/35	43.9	—	8.9 25/44	4.2
July .. ..	51.8	33.8	42.8	63.5 16/34	20.0 (e)	43.5	—	10.8 9/37	4.8
August .. ..	55.1	35.4	45.3	71.0 24/54	21.0 3/29	50.0	—	10.1 6/44	5.8
September ..	61.4	38.9	50.1	81.5 16/34	25.2 6/46	56.3	—	13.0 6/45	7.2
October .. ..	67.0	44.2	55.6	90.0 13/46	28.0 26/61	62.0	—	18.2 2/45	7.8
November ..	72.9	48.7	60.8	101.4 19/44	32.2 11/36	69.2	—	22.9 6/56	8.2
December ..	79.5	53.3	66.4	103.5 27/38	36.0 24/28	67.5	—	29.1 21/56	8.5
Year { Averages ..	67.1	44.9	56.0	—	—	—	—	—	6.8
Extremes	—	—	—	107.4 11/1/39	18.1 20/6/35	89.3	—	8.9 25/6/44	—

(a) No record.

(b) 22/1931 and 23/1931.

(c) 9/1929 and 15/1957.

(d) 13/1937 and 15/1946.

(e) 19/1929, 9/1937 and 27/1943.

**Humidity, Rainfall and Fog**

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.				Rainfall (inches)					Fog
		Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No. of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No. of days of fog
No. of years over which observation extends	26	28	28	28	29	29	34	34	34	25	
January .. .. .	0.370	53	69	39	2.13	7	6.69 1941	0.02 1932	3.22 30/58	0.1	
February .. .. .	0.388	59	71	40	2.17	7	6.03 1948	0.01 1933	3.24 17/28	0.2	
March .. .. .	0.378	66	82	48	2.48	7	12.69 1950	0.01 1940	2.72 1/61	1.0	
April .. .. .	0.315	71	81	54	2.17	8	5.19 1952	0.07 1942	2.52 9/45	1.4	
May .. .. .	0.254	79	89	67	2.06	8	6.13 1948	0.06 1935	3.88 3/48	4.8	
June .. .. .	0.212	81	90	72	1.92	9	6.09 1931	0.18 1944	2.32 25/56	5.8	
July .. .. .	0.196	81	91	73	1.61	10	5.08 1960	0.27 1940	2.02 13/33	5.3	
August .. .. .	0.213	75	88	60	1.98	11	4.71 1939	0.36 (a)	2.07 12/29	2.4	
September .. .. .	0.239	66	78	51	1.62	9	4.52 1960	0.13 1946	1.75 3/47	1.4	
October .. .. .	0.273	60	72	46	2.77	11	6.98 1959	0.34 1940	5.19 21/59	0.4	
November .. .. .	0.301	55	67	38	2.11	8	5.98 1961	0.28 1936	2.45 9/50	0.1	
December .. .. .	0.338	51	70	37	1.86	8	8.80 1947	0.16 1938	2.29 28/29	0.0	
Year { Totals .. .. .	—	—	—	—	24.88	103	—	—	—	22.9	
Averages .. .. .	0.286	66	—	—	—	—	—	—	—	—	
Extremes .. .. .	—	—	91	37	—	—	12.69 3/50	0.01 2/33, 3/40	5.19 21/10/59	—	

(a) 1944 and 1949.

All dates relate to twentieth century.

**CLIMATOLOGICAL DATA: MELBOURNE, VICTORIA**  
(LAT. 37° 49' S., LONG. 144° 58' E. HEIGHT ABOVE M.S.L. 114 Ft.)  
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days

Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days										
Month	Bar. corrected to 32° F. m.n. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 93 feet)				Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m.-3 p.m., 9 p.m.-a	No. of clear days	
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction					
					9 a.m.					3 p.m.
No. of years of observations..	30(b)	15(c)	49	52	30(b)	30(b)	30(b)	30(b)	30(b)	
January ..	29.897	8.8	21.1 27/41	66	S & SW	S	6.55	1.8	4.9	6.8
February ..	29.950	8.4	19.0 13/47	74	N & S	S	5.10	2.3	4.8	6.4
March ..	30.025	7.8	18.0 3/61	66	N	S	4.26	1.8	5.3	5.5
April ..	30.092	7.1	19.9 16/43	67	N	S	2.53	1.2	5.9	4.6
May ..	30.113	7.4	21.8 1/57	72	N	N	1.57	0.5	6.1	3.4
June ..	30.097	7.2	22.8 16/47	62	N	N	1.18	0.4	6.5	2.7
July ..	30.079	8.7	22.7 22/60	68	N	N	1.16	0.3	6.3	2.9
August ..	30.048	8.2	21.3 20/42	65	N	N	1.54	0.9	6.0	3.1
September ..	30.001	8.5	21.0 21/59	69	N & W	N & S	2.41	1.3	5.9	3.3
October ..	29.968	8.4	18.6 12/52	69	N	S	3.54	1.8	6.1	3.8
November ..	29.951	8.6	21.2 13/58	71	S & SW	S	4.62	2.3	6.0	3.6
December ..	29.896	8.7	21.0 11/52	61	S & SW	S	5.85	1.9	5.6	4.5
Year { Totals ..	30.010	8.1	—	—	N	S	40.31	16.5	—	50.6
Averages	—	—	—	—	—	—	—	—	—	—
Extremes	—	—	22.8 16/6/47	74	—	—	—	—	5.8	—
(a) Scale 0-10.		(b) Standard 30 years' normal (1911-1940).				(c) Early records not comparable.				

(a) Scale 0-10.

(b) Standard 30 years' normal (1911-1940).

(c) Early records not comparable.

## Temperature and Sunshine

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends . .	30(a)	30(a)	30(a)	106	106	106	86(b)	102	35(c)
January .. ..	77.7	56.9	67.3	114.1 13/39	42.0 28/85	72.1	178.5 14/62	30.2 28/85	7.8
February .. ..	78.6	58.0	68.3	109.5 7/01	40.2 24/24	69.3	167.5 15/70	30.9 6/91	7.4
March .. ..	74.9	55.2	65.1	107.0 11/40	37.1 17/84	69.9	164.5 1/68	28.9 (d)	6.5
April .. ..	67.9	50.8	59.3	94.8 5/38	34.8 24/88	60.0	152.0 8/61	25.0 23/97	5.0
May .. ..	62.0	46.9	54.5	83.7 7/05	29.9 29/16	53.8	142.6 2/59	21.1 26/16	4.1
June .. ..	56.8	43.8	50.3	72.3 2/57	28.0 11/66	44.3	129.0 11/61	19.9 30/29	3.4
July .. ..	56.2	42.6	49.4	69.3 22/26	27.0 21/69	42.3	125.8 27/80	20.5 12/03	3.7
August .. ..	58.7	43.7	51.2	77.0 20/85	28.3 11/63	48.7	137.4 29/69	21.3 14/02	4.6
September ..	63.3	46.0	54.7	88.6 28/28	31.0 3/40	57.6	142.1 20/67	22.8 8/18	5.5
October .. ..	67.9	48.7	58.3	98.4 24/14	32.1 3/71	66.3	154.3 28/68	24.8 22/18	5.8
November ..	71.3	51.8	61.5	105.7 27/94	36.5 2/96	69.2	159.6 29/65	24.6 2/96	6.2
December ..	75.4	55.3	65.3	110.7 15/76	40.0 4/70	70.7	170.3 20/69	33.2 1/04	7.0
Year { Averages .. ..	67.6	50.0	58.8	—	—	—	—	—	5.6
Extremes ..	—	—	—	114.1 13/1/39	27.0 21/7/1869	87.1	178.5 14/1/1862	19.9 30/6/29	—

(a) Standard 30 years' normal (1911-1940).

(b) Records discontinued, 1946.

(c) 1916-1950.

(d) 17/1884 and 20/1897.

## Humidity, Rainfall and Fog

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)							Fog	
		Mean 9 a.m.	Highest mean	Lowest mean	Mean monthly	Mean No. of days of rain	Greatest monthly		Least monthly		Greatest in one day		Mean No. of days of fog
No. of years over which observation extends	30(a)	30(a)	52	52	30(a)	30(a)	106		106		106	30(a)	
January .. .. .	0.382	58	68	50	1.88	9	6.66	1941	0.01	1932	2.97 9/97	0.1	
February .. .. .	0.417	62	77	48	2.00	8	7.72	1939	0.03	1870	3.44 26/46	0.3	
March .. .. .	0.385	64	79	50	2.22	9	7.50	1911	0.14	1934	3.55 5/19	1.1	
April .. .. .	0.351	72	82	66	2.30	13	7.67	1960	Nil	1923	3.15 23/60	2.3	
May .. .. .	0.311	79	88	70	1.94	14	5.60	1942	0.14	1934	1.85 7/91	6.8	
June .. .. .	0.276	83	92	75	2.06	16	4.51	1859	0.61	1958	1.74 21/04	6.5	
July .. .. .	0.264	82	86	75	1.93	17	7.02	1891	0.57	1902	2.71 12/91	6.5	
August .. .. .	0.271	76	82	65	2.02	17	4.35	1939	0.48	1903	1.94 26/24	3.7	
September .. .. .	0.288	68	76	60	2.20	15	7.93	1916	0.52	1907	2.62 12/80	1.3	
October .. .. .	0.307	62	71	52	2.63	14	7.61	1869	0.29	1914	3.00 17/69	0.3	
November .. .. .	0.336	60	69	52	2.33	13	8.11	1954	0.25	1895	2.86 21/54	0.3	
December .. .. .	0.373	59	69	48	2.38	11	7.18	1863	0.11	1904	3.92 4/54	0.2	
Year { Totals .. .. .	—	—	—	—	25.89	156	—	—	—	—	—	29.4	
Averages .. .. .	0.323	69	—	—	—	—	—	—	—	—	—	—	
Extremes .. .. .	—	—	92	48	—	—	8.11	11/1954	Nil	4/1923	3.92 4/12/54	—	

(a) Standard 30 years' normal (1911-1940).  
Dates in italics relate to nineteenth century.

**CLIMATOLOGICAL DATA: HOBART, TASMANIA**  
(LAT. 42° 53' S., LONG. 147° 20' E. HEIGHT ABOVE M.S.L. 177 FT.)  
**Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days**

Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days										
Month	Bar. corrected to 32° F. mn. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 40 feet)				Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m. (a)	No. of clear days	
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction					
					9 a.m.					3 p.m.
No. of years of observations...	30(b)	30(b)	69	71	30(b)	30(b)	30(b)	30(b)	30(b)	
January ..	29.819	8.0	20.8 30/16	76	NNW	SSE	4.84	0.9	6.4	1.9
February ..	29.913	7.2	25.2 4/27	67	NNW	SSE	3.71	1.0	6.2	2.3
March ..	29.961	6.8	21.4 13/38	79	NW	SSE	3.10	1.2	6.1	2.4
April ..	29.997	6.7	24.1 9/52	74	NW	W	1.98	0.7	6.5	1.7
May ..	30.009	6.3	20.2 20/36	79	NNW	NW	1.37	0.4	6.1	2.4
June ..	29.986	6.2	23.7 27/20	75	NW	NW	0.91	0.4	6.2	2.0
July ..	29.958	6.5	22.9 22/53	78	NNW	NNW	0.94	0.3	6.1	2.4
August ..	29.906	6.8	25.5 19/26	87	NNW	NW	1.28	0.4	6.1	2.1
September ..	29.860	7.9	21.5 26/15	84	NNW	NW	1.97	0.7	6.3	1.5
October ..	29.833	8.2	19.2 8/12	74	NNW	SW	3.05	0.6	6.6	1.0
November ..	29.831	7.9	21.2 18/15	84	NNW	S	3.77	0.7	6.4	1.3
December ..	29.816	7.6	23.4 1/34	70	NNW	SSE	4.37	0.5	6.8	1.1
Year { Totals	—	—	—	—	—	—	31.29	7.8	—	22.1
Year { Averages	29.907	7.2	—	—	NNW	W	—	—	6.3	—
Year { Extremes	—	—	25.5 19/8/26	87	—	—	—	—	—	—

(a) Scale 0-10.

(b) Standard 30 years' normal (1911-1940).

**Temperature and Sunshine**

Month	Mean tempera- ture (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends..	30(a)	30(a)	30(a)	92(b)	92(b)	92(b)	57(c)	74(b)	30
January .. .. .	69.8	52.4	61.0	105.0 (d)	40.1 (e)	64.9	160.0 (f)	30.6 19/97	7.7
February .. .. .	70.6	53.7	62.2	104.4 12/99	39.0 20/87	65.4	165.0 24/98	28.3 —/87	7.1
March .. .. .	67.5	51.3	59.4	99.1 13/40	35.2 31/26	63.9	150.9 26/44	27.5 30/02	6.4
April .. .. .	62.2	48.0	55.1	87.1 1/41	33.3 24/88	53.8	142.0 18/93	25.0 —/86	5.0
May .. .. .	57.8	44.6	51.2	77.8 5/21	29.2 20/02	48.6	128.0 (g)	20.0 19/02	4.4
June .. .. .	52.8	41.2	47.0	69.2 1/07	29.2 28/44	40.0	122.0 12/94	21.0 6/87	4.0
July .. .. .	52.7	40.6	46.6	66.1 14/34	27.7 11/95	38.4	121.0 12/93	18.7 16/86	4.4
August .. .. .	55.4	41.7	48.7	71.6 28/14	28.9 9/51	42.7	129.0 —/87	20.1 7/09	5.1
September .. ..	59.0	43.7	51.4	81.7 23/26	31.0 16/97	50.7	138.0 23/93	18.3 16/26	5.9
October .. .. .	62.5	46.1	54.3	92.0 24/14	32.0 12/89	60.0	156.0 9/93	23.8 (h)	6.1
November .. ..	65.0	48.2	56.6	98.3 26/37	35.0 16/41	63.3	154.0 19/92	26.0 1/08	7.2
December .. ..	67.9	51.3	59.6	105.2 30/97	38.0 3/06	67.2	161.5 10/39	27.2 —/86	7.3
Year { Averages	61.9	46.9	54.4	—	—	—	—	—	5.9
Year { Extremes	—	—	—	105.2 30/12/1897	27.7 11/7/1895	77.5	165.0 24/2/1898	18.3 16/9/26	—

(a) Standard 30 years' normal (1911-1940).

(b) Records 1855-1882 not comparable.

(c) Period 1934-1938 not comparable; records discontinued, 1946.

(f) 5/1886 and 13/1905.

(g) —/1889 and —/1893.

(d) 1/1900 and 19/1959.

(e) 9/1937 and 11/1937.

(h) 1/1886 and —/1899.

**Humidity, Rainfall and Fog**

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)							Fog	
		Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No. of days of rain	Greatest monthly		Least monthly	Greatest in one day		Mean No. of days of fog
No. of years over which observation extends	30(a)	55	70	70	30(a)	30(a)	79(b)		79(b)	79(b)	30(c)		
January ..	0.309	59	72	46	1.82	13	5.91	1893	0.17	(d)	2.96	30/16	0.0
February ..	0.342	63	77	48	1.68	10	5.15	1954	0.11	1914	2.20	1/54	0.0
March ..	0.323	67	77	52	2.13	13	10.05	1946	0.29	1943	3.47	17/46	0.3
April ..	0.290	72	84	58	2.31	14	9.77	1960	0.07	1904	5.25	23/60	0.2
May ..	0.263	78	89	65	1.71	14	8.43	1958	0.14	1913	1.75	2/93	0.9
June ..	0.233	80	91	68	2.25	16	9.38	1954	0.28	1886	5.80	7/54	0.8
July ..	0.227	80	94	72	2.14	17	6.02	1922	0.17	1950	2.51	18/22	1.0
August ..	0.232	76	92	60	1.82	18	6.32	1946	0.30	1892	2.28	14/90	0.4
September ..	0.240	67	85	58	1.90	17	7.93	1957	0.38	1951	6.15	15/57	0.1
October ..	0.258	67	73	51	2.52	18	7.60	1947	0.39	1914	2.58	4/06	0.0
November ..	0.274	60	72	50	2.23	16	7.39	1885	0.33	1921	3.70	30/85	0.1
December ..	0.306	58	67	45	2.52	14	7.72	1916	0.17	1931	3.33	5/41	0.0
Year { Totals ..	—	—	—	—	25.03	180	—		—		—		3.8
Year { Averages ..	0.271	69	—	—	—	—	—		—		—		—
Year { Extremes ..	—	—	94	45	—	—	10.05 3/1946		0.07 4/1904		6.15 15/9/57		—

(a) Standard 30 years' normal (1911-1940).

(b) Records prior to 1883 not comparable.

(c) 1922-1951.

(d) 1915 and 1958.

Dates in italics relate to nineteenth century.

## CHAPTER III

### GENERAL GOVERNMENT

#### § 1. Scheme of Parliamentary Government

1. **General.**—Under Section 1 of the Commonwealth of Australia Constitution, the legislative power of the Commonwealth is vested in the Parliament of the Commonwealth, which consists of the Sovereign, the Senate, and the House of Representatives. The Sovereign is represented throughout the Commonwealth by the Governor-General who, subject to the Constitution of the Commonwealth, has such powers and functions as the Sovereign is pleased to assign to him. In each State, there is a State Governor who is the representative of the Sovereign for the State and who exercises such powers within the State as are conferred upon him by the Letters Patent which constitute his office and by the instructions which inform in detail of the manner in which his duties are to be fulfilled. The Legislature in each State was bi-cameral until 1922, when the Queensland Upper House was abolished and the Parliament became uni-cameral. In the bi-cameral Parliaments, the Upper House is known in the Commonwealth Parliament as the Senate, and in the State Parliaments as the Legislative Council, while the Lower House is known in the Commonwealth Parliament as the House of Representatives, in the State Parliaments of New South Wales, Victoria and Western Australia as the Legislative Assembly, and in the State Parliaments of South Australia and Tasmania as the House of Assembly. In Queensland, the Legislative Assembly constitutes the legislature. The legislative powers of the Parliaments are delimited by the Commonwealth and State Constitutions. The Assembly, which is the larger House, is, in all cases, elective, the franchise extending to adult British subjects with certain residential qualifications. The Council in each of the States other than New South Wales is elected by the people of the State concerned, the constituencies being differently arranged and, in general, some property or special qualification for the electorate being required. In Victoria, however, under the Legislative Council Reform Act passed in October, 1950, adult suffrage was adopted for Legislative Council elections. In the case of New South Wales, the Council is elected by the members of both Houses of Parliament at a simultaneous sitting. In the Federal Parliament, the qualifications for the franchise are identical for both Houses, extending to adult British subjects who have lived in Australia for six months continuously.

2. **The Sovereign.**—(i) *Accession of Queen Elizabeth II.* On 7th February, 1952, the Governor-General and members of the Federal Executive Council proclaimed Princess Elizabeth Queen Elizabeth the Second, Queen of this Realm and of all Her other Realms and Territories, Head of the Commonwealth, Defender of the Faith, Supreme Liege Lady in and over the Commonwealth of Australia. The coronation of Her Majesty in Westminster Abbey took place on 2nd June, 1953.

(ii) *Royal Style and Titles Act 1953.* Following a conference of Prime Ministers and other representatives of the British Commonwealth in London in December, 1952, the Royal Style and Titles Act was passed on 3rd April, 1953, giving Parliament's assent to the adoption by the Queen, for use in relation to the Commonwealth of Australia and its Territories, of the following Royal Style and Titles:—"Elizabeth the Second, by the Grace of God of the United Kingdom, Australia and Her other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith."

(iii) *Authorization of a Royal Great Seal.* By warrant published in the Commonwealth Gazette of 17th November, 1955, Her Majesty authorized the Great Seal of the Commonwealth to be used as a Royal Great Seal in sealing all things whatsoever (other than things that pass the said Great Seal) that bear Her Majesty's Sign Manual and the counter-signature of one of Her Ministers of State for the Commonwealth.



### 3. Powers and Functions of the Governor-General and of the State Governors.—

(i) *Governor-General of the Commonwealth.* As the Queen's representative in Australia, the Governor-General exercises certain prerogative powers and functions assigned to him by the Queen, either by Letters Patent, by Instructions under the Royal Sign Manual and Signet, by Commission issued to him under the Royal Sign Manual and Signet, or by the Constitution. Powers which have been so assigned include, among others, the power to appoint a Deputy or Deputies of the Governor-General; to administer or authorize any other person to administer the Oath of Allegiance; to grant pardons and to remit fines for offences against the laws of the Commonwealth; to appoint certain officers in the Diplomatic or Consular Service of the Commonwealth; to appoint times for holding the sessions of the Parliament, prorogue Parliament and dissolve the House of Representatives; to cause writs to be issued for general elections of members of the House of Representatives; to assent in the Queen's name to a proposed law passed by both Houses of the Parliament or withhold assent, or to reserve the law for the Queen's pleasure, or to return the proposed law to the House in which it originated and transmit therewith any amendments which he may recommend; to exercise the executive power of the Commonwealth; to choose and summon Executive Councillors, who hold office during his pleasure; to appoint Ministers of State for the Commonwealth. In addition, the command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General, as the Queen's representative. Under the conventions of responsible government obtaining in Commonwealth countries, the Governor-General's executive functions generally are exercised on the advice of Ministers of State.

Most Acts of the Commonwealth Parliament provide that the Governor-General may make regulations to give effect to the act or to cover certain matters specified in the power. The Governor-General may also be authorized by statute to issue proclamations—for example, to declare an act in force or a state of things to exist, e.g. the existence of an epidemic, and he has been given power by statute to legislate for certain Territories of the Commonwealth.

(ii) *Governors of the States.* The Queen is represented in each of the States by a Governor, the office having been constituted by Letters Patent under the Great Seal of the United Kingdom of various dates.

The Governors of the States exercise powers, in respect of each State, largely similar to those exercised by the Governor-General in respect of the Commonwealth.

(iii) *Holders of Office.* For the names of the Governors-General since the inception of the Commonwealth and the present State Governors, see § 4, page 76.

4. *The Cabinet and Executive Government.*—(i) *General.* Both in the Commonwealth and in the States, executive government is based on the system which was evolved in Britain in the 18th century, and which is generally known as "Cabinet" or "responsible" government. Its essence is that the head of the State (Her Majesty the Queen, and her representative, the Governor-General or Governor) should perform governmental acts on the advice of her Ministers; that she should choose her principal Ministers of State from members of Parliament belonging to the party, or coalition of parties, commanding a majority in the popular House; that the Ministry so chosen should be collectively responsible to that House for the government of the country; and that the Ministry should resign if it ceases to command a majority there.

The Cabinet system operates chiefly by means of constitutional conventions, customs, or understandings, and through institutions that do not form part of the legal structure of the government at all. The constitutions of the Commonwealth and the States make fuller legal provision for the Cabinet system than the British Constitution does—for example, by requiring that Ministers shall either be, or within a prescribed period become, members of the Legislature. In general, however, the legal structure of the executive government remains the same as it was before the establishment of the Cabinet system.

The executive power of the Commonwealth is exercisable by the Governor-General, and that of the States by the Governor. In each case, he is advised by an Executive Council, which, however, meets only for certain formal purposes, as explained below. The whole policy of a Ministry is, in practice, determined by some or all of the Ministers of State, meeting without the Governor-General or Governor under the chairmanship of the Prime Minister or Premier. This group of Ministers is known as the Cabinet.

(ii) *The Cabinet.* This body does not form part of the legal mechanism of government. Its meetings are private and deliberative. The actual Ministers of the day alone are present, no records of the meetings are made public, and the decisions taken have, in themselves, no legal effect. In Australia, until January, 1956, all Ministers were members of the Cabinet. Since then, however, although in the States all Ministers are members of the Cabinet, the Commonwealth ministry is made up of twelve senior Ministers, who constitute the Cabinet, and ten Ministers of non-Cabinet rank who attend meetings of the Cabinet only when required, as, for example, when the business of the Cabinet concerns their departments. As Ministers are the leaders of the party or parties commanding a majority in the popular House, the Cabinet substantially controls, in ordinary circumstances, not only the general legislative programme of Parliament, but the whole course of Parliamentary proceedings. In effect, though not in form, the Cabinet, by reason of the fact that all Ministers are members of the Executive Council, is also the dominant element in the executive government of the country. Even in summoning, proroguing or dissolving Parliament, the Governor-General or Governor is usually guided by the advice tendered him by the Cabinet, through the Prime Minister or Premier, though legally the discretion is vested in the Governor-General or Governor himself.

(iii) *The Executive Council.* This body is usually presided over by the Governor-General or Governor, the members thereof holding office during his pleasure. All Ministers of State must be members of the Executive Council. In the Commonwealth, and also in the States of Victoria and Tasmania, Ministers remain members of the Executive Council on leaving office, but are not summoned to attend its meetings, for it is an essential feature of the Cabinet system that attendance should be limited to the Ministers of the day. The meetings of the Executive Council are formal and official in character, and a record of proceedings is kept by the Secretary or Clerk. At Executive Council meetings, the decisions of the Cabinet are (where necessary) given legal form, appointments made, resignations accepted, proclamations issued, and regulations and the like approved.

(iv) *The Appointment of Ministers.* Legally, Ministers hold office during the pleasure of the Governor-General or Governor. In practice, however, the discretion of the Queen's representative in the choice of Ministers is limited by the conventions on which the Cabinet system rests. When a Ministry resigns, the Crown's custom is to send for the leader of the party which commands, or is likely to be able to command, a majority in the popular House, and to commission him, as Prime Minister or Premier, to "form a Ministry"—that is, to nominate other persons to be appointed as Ministers of State and to serve as his colleagues in the Cabinet.

(v) *Ministers in Upper and Lower Houses.* The following table shows the number of Ministers with seats in the Upper or Lower Houses of each Parliament in December, 1962.

AUSTRALIAN PARLIAMENTS: MINISTERS IN UPPER OR LOWER HOUSES, DECEMBER, 1962

Ministers with seats in—	C'wealth	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
The Upper House ..	5	2	4	(a)	3	2	1	17
The Lower House ..	17	14	10	11	5	8	8	73
Total ..	22	16	14	11	8	10	9	90

(a) Abolished in 1922.

For the names of the occupants of ministerial office in each of the Parliaments of Australia in December, 1962, see § 4 of this chapter, page 76. Subsequent changes will be found in the Appendix to this volume.

(vi) *Numbers and Salaries of Commonwealth Ministers.* Under sections 65 and 66, respectively, of the Constitution of the Commonwealth, the number of Ministers of State was not to exceed seven, and the annual sum payable for their salaries was not to exceed £12,000, each provision to operate, however, "until the Parliament otherwise provides".

Subsequently, the number and salaries have been increased from time to time, and from 1959 the annual sum payable for salaries has been fixed at £66,000 and the number of Ministers at 22. An additional ministerial allowance of £3,500 a year has been payable to the Prime Minister since 1952, and at the same time an additional ministerial allowance of £1,000 a year was granted to each other Minister. This latter figure was increased, in 1959, to £1,500 a year for senior Ministers and £1,250 a year for junior Ministers.

All amounts payable in the foregoing paragraphs are in addition to amounts payable as Parliamentary allowances (see para. 5 following).

5. **Number and Salary of Members of the Legislatures, Australian Parliaments, December, 1962.**—The following table shows the number and annual salary of members in each of the legislative chambers in December, 1962.

**AUSTRALIAN PARLIAMENTS: MEMBERS AND ANNUAL SALARIES,  
31st DECEMBER, 1962**

Members in—	C'wealth	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
NUMBER OF MEMBERS								
Upper House ..	60	60	34	(a)	20	30	19	223
Lower House ..	124	94	66	78	39	50	35	486
<b>Total ..</b>	<b>184</b>	<b>154</b>	<b>100</b>	<b>78</b>	<b>59</b>	<b>80</b>	<b>54</b>	<b>709</b>
ANNUAL SALARY (£)								
Upper House ..	(b) 2,750	500	(c) 2,000	(a)	(d) 2,000	(e) 2,220	(f) 1,850	..
Lower House ..	(b) 2,750	(g) 2,350	(c) 2,000	(h) 2,501	(d) 2,000	(e) 2,220	(f) 1,850	..

(a) Abolished in 1922. (b) Plus expense allowances—Senators, £800; Members of the House of Representatives, city electorates, £850, country electorates, £1,050. Certain additional allowances are also provided for holders of parliamentary offices, etc. (c) Plus allowance of £550 for metropolitan, £750 for urban, £850 for inner country and £950 for outer country electorates. (d) Plus allowance of £550 where electorate is less than 50 miles from Adelaide; £700 if more than 50 miles, £800 if more than 200 miles. (e) Plus £50 where any part of electorate is more than 50 miles from Perth and expense reimbursement ranging from £450 for a Metropolitan member to £700 for a North Province member. (f) Plus allowance according to area of electorate and distance from the capital varying from £250 to £575 in the case of the Legislative Council, and from £725 to £875 in the case of the House of Assembly. (g) Plus allowance varying from £650 to £950 according to location of electorate. (h) Plus individual electoral allowances varying between £325 and £1,175.

6. **Enactments of the Parliaments.**—In the Commonwealth, all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Constitution. In the States other than South Australia and Tasmania, laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly. In South Australia and Tasmania, laws are expressed to be enacted in the name of the Governor of the State, with the advice and consent of the Parliament in the case of South Australia, and of the Legislative Council and House of Assembly in the case of Tasmania. The Governor-General or the State Governor acts on behalf of, and in the name of, the Sovereign in assenting to Bills passed by the Legislatures, but he may reserve them for the special consideration of the Sovereign. The Parliaments of the States are empowered generally, subject to the Commonwealth Constitution, to make laws in and for their respective States, in all cases whatsoever. Subject to certain limitations, they may alter, repeal, or vary their Constitutions. Where a law of a State is inconsistent with a law of the Commonwealth, the latter prevails, and the former is, to the extent of the inconsistency, invalid.

## § 2. The Parliament of the Commonwealth of Australia\*

Section 1 of the Commonwealth of Australia Constitution provides that the legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate and a House of Representatives, and be known as "The Parliament of the Commonwealth".

1. **The Senate.**—Both Houses of the Federal Parliament are elected by the same body of electors. In choosing a bi-cameral legislative system, the founders of the Constitution had in mind, however, that the Senate should give expression to the interests of the States as partners in the federation; that is to say, that the Senate should be a States House. Accordingly, the founders decided that the number of senators to be chosen for each original State should be the same for each State, irrespective of population, and that the number of senators for each original State should not be less than six.

The Senate was also designed to function as a House of Review—a function universally accepted as the role of a second chamber. With this in mind, the founders provided that senators should be elected for six-year terms and that one-half of their number should retire every three years instead of all senators retiring at the same time. This rotation principle ensures an element of continuity in the constitution of the Senate, and the six-year terms were designed to give senators greater independence and better opportunities for deliberation in dealing with proposed legislation.

It is noteworthy that bills, other than bills appropriating revenue or money or imposing taxation, may originate in the Senate, and in practice some bills passed each year in the Federal Parliament are first introduced in the Senate. There are certain money bills which the Senate may not amend, but in respect of these the Senate may make requests for amendments. However, there is no bill coming from the House of Representatives that the Senate cannot reject if it wishes. In view of the Senate's power of veto, the founders considered that some provision was necessary to deal with deadlocks that could arise between the House of Representatives and the Senate. The Constitution provides for a dissolution of the two Houses simultaneously where a deadlock occurs, thus breaking the continuity of the existence of the Senate. To meet this situation, the Constitution makes further provision for the rotation of senators following a double dissolution. The whole number of senators returned at the general elections following the double dissolution is divided equally by resolution of the Senate into two classes—senators of the first class holding their places for three-year terms and senators of the second class (in practice, the half first selected in each State) holding their places for six-year terms. All terms are deemed to begin on the first day of July preceding the day of election, in contrast to the usual position, in which a senator's term begins on the first day of July following his date of election.

In the first Federal Parliament, the Senate comprised thirty-six members, six being returned by the electors for each State. The number remained at thirty-six until Parliament provided, in the *Representation Act* 1948, that the number to be chosen for each State should be increased to ten, making a total of sixty senators for the six States.

2. **The House of Representatives.**—The House of Representatives was designed by the founders of the Constitution to be the legislative body representing the national interest. Its members are directly chosen by the people of the Commonwealth. The numbers of members chosen in the several States must be in proportion to population, save that no original State may have less than five members. The maximum duration of the House of Representatives is three years from its first meeting, but the House may be dissolved sooner by the Governor-General.

Under the Constitution, Parliament is empowered to make laws for increasing or diminishing the number of the members of the House of Representatives. But the Constitution further declares that the number of such members shall be as nearly as practicable twice the number of senators, a requirement commonly known as the two to one ratio.

There were seventy-five members of the first House of Representatives in 1901 compared with thirty-six senators in the same Parliament. The number of members was increased by the *Representation Act* 1948, when the number of senators was increased to ten for each State, and a total of 121 members was chosen in the several States at the general elections in December, 1949. Following an electoral redistribution in 1955, the House was increased to 122 members.

\* The following description of the Commonwealth Parliament, its functions and procedure, was specially prepared for this issue of the Year Book by the Clerk of the Senate and the Clerk of the House of Representatives.

Parliament may also make laws allowing representation of a Territory of the Commonwealth in either House. Since 1922, the Northern Territory has been represented by one member in the House of Representatives. The *Australian Capital Territory Representation Act 1948* gave that Territory one member in the House as from the elections in 1949. These members, who are additional to those chosen for the several States, are restricted in their right to vote, and may not hold certain offices in the House.

**3. Parliamentary Procedure.**—The Standing Orders are a body of rules, numbering over four hundred for each House,\* drawn up for the proper conduct of parliamentary business. Power to make such rules is given by section 50 of the Constitution, which provides that each House may make rules and orders with respect to (i) the mode in which its powers, privileges, and immunities may be exercised and upheld; (ii) the order and conduct of its business and proceedings either separately or jointly with the other House. Among other things, the Standing Orders lay down procedure for election of Presiding Officers and Chairmen; provide for keeping suitable records of proceedings; lay down days and hours of meeting for the House of Representatives; state rules of debate, time limits for speeches, rules for preserving order; lay down the order or routine of business; and state rules in connexion with the presentation of petitions, the asking of questions, giving notices of motion, taking of divisions, appointment and procedure of various committees, moving of motions and amendments, and the passing of bills, etc.

The Standing Orders of the Commonwealth Parliament were drawn up broadly along the lines of those existing in the United Kingdom Parliament, modified to suit Australian conditions. In the House of Commons, Standing Orders were evolved over a period of centuries, their trend of development being always towards a true form of dignified democratic procedure allowing free speech and fair dealing for majority and minority parties alike.

The Standing Orders of the Senate were largely adopted from those of the House of Assembly of South Australia, with necessary alterations and certain exceptions. The reasons for the adoption were that the South Australian Standing Orders were familiar to the then President and could be administered by him without difficulty or delay, that they had been adopted by the Commonwealth Convention which drafted the Constitution and were considered to have been satisfactory by that body, and more members of the Senate were acquainted with them than with any other Standing Orders. The Standing Orders of the House of Representatives were temporarily adopted by the House on 6th June, 1901, and finally adopted on 21st March, 1950. In most cases, uniformity was achieved between the House of Representatives Standing Orders and those of the Senate. However, Standing Order No. 1 of the House of Representatives was rejected by the Senate. This Order stated:

In all cases not provided for hereinafter, or by Sessional or other Orders, resort shall be had to the rules, forms and practice of the Commons House of the Imperial Parliament of Great Britain and Ireland in force at the time of adoption of these Orders, which shall be followed as far as they can be applied to the proceedings of the House of Representatives.

The intention of the Senate in rejecting this Standing Order was that, in cases not positively and specifically provided for, the Senate should gradually build up rules, forms, and practices of its own, suited to its own conditions. In pursuance of this decision, the rulings of all the Presidents since 1903, when permanent Standing Orders came into force, have been consolidated and bound in separate volumes, and unless and until disagreed to by the Senate are binding on the Senate as a part of its procedure.

In pursuance of the House of Representatives Standing Order No. 1, now slightly amended from that stated above, the House has frequently to resort to the practice of the House of Commons. This practice is embodied in various authoritative works, the main one of which is Sir Thomas Erskine May's *Parliamentary Practice*.

**4. The Principal Officers in the Chamber (other than the Ministry).**—(i) *General.* Apart from the Ministry, the principal officers in the Chambers of the Parliament are:—The President of the Senate, the Speaker of the House of Representatives, the Chairman of Committees of the Senate, the Chairman of Committees of the House of Representatives, the Leaders of the Opposition in each House, and the Whips. In addition, in each Chamber there is the Clerk and the Clerk-Assistant, while in the Senate there is the Usher of the Black Rod and in the House of Representatives the Serjeant-at-Arms.

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\* Unless otherwise indicated, the term "House" is used to refer to both the Senate and the House of Representatives and the term "member" includes "senator".

(ii) *The President of the Senate.* The President, who must be a member of the Senate, is chosen every three years by a secret ballot of members of that House (where more than one candidate is proposed). He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

The Standing Orders provide that the office of President shall become vacant on the thirtieth day of June following a periodical election, but, if the place of the holder of the office has not become vacant on that day, the office of President continues until the day next before the first sitting day of the Senate after such thirtieth day of June. A former President is eligible for re-election.

On any question before the Chair, the President is entitled to a deliberative but not a casting vote. This ensures that the States have equal voting strength. When the votes are equal, a question passes in the negative.

The President controls the Senate and its precincts. In the Commonwealth Table of Precedence the President ranks immediately below the Prime Minister and before the Speaker.

(iii) *The Speaker of the House of Representatives.* Like the President of the Senate, the Speaker of the House of Representatives must be a member of the House over which he presides, and is chosen at the commencement of each new Parliament by members of the House. If there are two or more candidates the Speaker is chosen by a secret ballot. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General. The Speaker controls the Chamber and its precincts.

The position of Speaker is one of great antiquity and dignity, and, traditionally, one of impartiality. Speakers (and Presidents of the Senate) nominated by Labour Governments (the support of the Government party as a rule ensures election) have usually disregarded the traditional robes of office—the full-bottomed wig and gown—but nominees of other parties have adhered to the traditional dress.

The Speaker is not entitled to a vote upon any question before the Chair unless the numbers are equal, when he may exercise a casting vote.

The President and the Speaker preside over their respective Houses, enforce the rules of debate and preserve order, call members who wish to speak, propose and put the necessary questions, announce decisions, and, generally act to ensure that the business of the House is conducted within the spirit and meaning of the Standing Orders.

Outside the Chamber, the Presiding Officers act as spokesmen for the Houses in their external relations, present addresses to the Crown, receive communications addressed to their respective Houses, and execute orders of the House.

(iv) *The Chairman of Committees of the Senate.* The Chairman of Committees in the Senate is appointed in a manner similar to the President. His term of office, normally three years, and expiring on the thirtieth day of June following a periodical election for the Senate, may be terminated or varied by vote of the Senate, or he may resign his office or seat by writing addressed to the President. During the unavoidable absence of the President, the Chairman of Committees, as Deputy President, performs the duties and exercises the authority of President in relation to all proceedings of the Senate.

(v) *The Chairman of Committees of the House of Representatives.* An appointment is made to the office of Chairman of Committees in the House of Representatives at the commencement of every Parliament in a manner similar to the Speaker. The member appointed takes the Chair of all Committees of the Whole, which include the committee stages of every bill, the Committee of Supply (where money is voted for Government services), and the Committee of Ways and Means (where money is raised by taxes or customs duties). During the unavoidable absence of the Speaker, the Chairman, as Deputy Speaker, performs the duties and exercises the authority of the Speaker in relation to all proceedings of the House.

(vi) *The Leader of the Opposition in the House of Representatives.* The Opposition Leader leads the largest party opposing the Government and so may be regarded as the country's alternative Prime Minister. His office is an old and historic one in parliamentary history. Apart from leading his party, the Leader of the Opposition is responsible for intelligent, well-informed, and constructive criticism of Government proposals. This process of critical analysis of proposed legislation is essential for the democratic functioning of Parliament.

(vii) *The Deputy Leader of the Opposition.* The Deputy Leader undertakes such duties as might be assigned to him by the Leader of the Opposition, and, in like manner, he carries much responsibility for criticism of Government policy and proposals.

In the Senate, the Leader of the Opposition and his Deputy perform duties of a nature similar to the corresponding officers in the Lower House.

(viii) *The Whip.* The office of Whip is an essential one in the party system. The Whip is appointed to marshal the full strength of his party for voting and other political action in the Chamber and to act as a liaison officer between the party leaders and the rank-and-file members. His duties include arranging speakers for various debates, ensuring the presence of members for divisions and quorums, telling (counting) of divisions, arranging pairs and leave of absence for members, and keeping abreast, if he can possibly do so, of the political moves and stratagems which the opposing parties are planning.

(ix) *The Clerk and Clerk-Assistant.* In each Chamber, two non-member officials, the Clerk and the Clerk-Assistant, wearing the traditional parliamentary dress of wig and gown, are seated at the head of the Chamber Table. The Clerk's long experience and knowledge of proceedings of the House and his advice upon the Standing Orders and points of procedure are available to the Presiding Officer, Ministers and other members. The Clerk's duties include the recording of the proceedings of the House (Senate—the Journals; House of Representatives—the Votes and Proceedings). He also endorses bills sent to the other Chamber, reads the titles of bills, and reads petitions and any other matter requiring to be read. The Clerks (who, together with their assistants and other officers, are members of the Commonwealth Public Service) are the permanent heads and are responsible for the functioning of their respective departments. The officers of each House are appointed by the Governor-General on the recommendation of its Presiding Officer, i.e. the President or Speaker. The Clerks-Assistant assist the Clerk in the Chamber, prepare the Notice Papers for the day's proceedings, and keep minutes of the business of the Chamber.

(x) *The Usher of the Black Rod and the Serjeant-at-Arms.* The Usher of the Black Rod (Senate) and the Serjeant-at-Arms (House of Representatives) attend upon their presiding officers upon entering and leaving the House or attending the Governor-General with an Address, are responsible for the preservation of order in the visitors' galleries and the lobbies of the Houses, and otherwise carry out the orders of the President and Speaker respectively. These officers are seated close to the Bar of their Chambers. They also have duties of an administrative character, act as secretary to various parliamentary committees, and supervise the staff of attendants.

5. *Legislation.*—(i) *General.* Pursuant to section 1 of the Constitution, the legislative power of the Commonwealth is vested in the Federal Parliament, consisting of the Sovereign (represented by the Governor-General), the Senate, and the House of Representatives.

Under Australia's federal system of government, there is a division of powers between the Federal and State Governments. Sections 51 and 52 of the Constitution list the matters with respect to which the Federal Parliament has power to make laws. Those powers may be increased by an alteration of the Constitution by referendum under section 128.

Law-making is the most important function of Parliament. What is known as a bill\* is a legislative proposal which, after finally passing both Houses and receiving the royal assent, becomes an Act of Parliament.

Bills originate in different ways. Broadly, routine machinery legislation stems from recommendations made by Government departments, while policy bills flow from the undertakings made by a Government in the election campaign and subsequently. Other legislative proposals follow suggestions made by Government members at party meetings and by members in the Parliament. In whatever way a proposal originates, the matter is considered by Cabinet, and, if it is agreed to, the responsible Minister is authorized to have a bill prepared. The Minister or his departmental officers then give the necessary instructions to the Parliamentary Draftsman. Bills may also be originated by private members. Bills may be originated in either House, with the provision that money bills (that is, appropriation and taxing bills) may originate only in the House of Representatives.

\* The word "bill" comes from the Latin *bullā*, a seal. In the courts of early Britain—and before the British Parliament was established—bills were documents with seals often founded on petitions. Later, when Parliament was formed, petitions were more frequently addressed to the King and Parliament than to the courts, and usually these petitions asked for a bill to be passed to remedy the grievance.

Except for certain special procedures on financial measures, the fundamental stages in the passage of a bill are:—Introductory proceedings; presentation and first reading; second reading; Committee proceedings; adoption of Committee's report; third reading; transmission to the other House and consideration of amendments (if any) made by that House; consideration of amendments (if any) proposed by the Governor-General; and royal assent.\*

(ii) *Introductory Proceedings.* On the Presiding Officer calling for Notices of Motion (soon after the meeting of the House), the member rises and gives notice that, at the next sitting, he will move that he have leave to bring in a bill for an Act to (then follows the long title of the bill). At the next sitting, when the notice of motion is called on, the member moves the motion. Although the motion may be debated, discussion at this stage is rare and the motion is usually agreed to immediately.

(iii) *Presentation and First Reading.* Following acceptance of the motion for leave, the member then presents the bill by handing a signed copy to the Clerk. Motion is then made that the bill be read a first time. The acceptance of the motion for the first reading (upon which, except in the Senate on certain money bills, no debate is allowed) permits a bill to be circulated and its contents to become known.

(iv) *Second Reading.* The Standing Orders provide that the second reading of a bill shall be made an Order of the Day for the next sitting, but it is the usual practice for the member to ask leave of the House (or to move the suspension of the Standing Orders) to permit the moving of the second reading forthwith. The member then makes his second reading speech explaining the general principles of the bill. Usually a member of the Opposition (in the case of a Government bill) obtains the adjournment of the debate until the next sitting. When the debate is resumed, a member may move an amendment to the question "That this bill be now read a second time". Such an amendment may take one of two forms: (i) it may omit "now" and add "this day six months" (if carried, this finally disposes of the bill), or (ii) it may omit all words after "That" and insert other words (this type of amendment, which must be relevant to the subject matter of the bill and cannot anticipate an amendment which may be more suitably moved in Committee, is known as a "reasoned amendment", and it is usually phrased to place on record any special reasons which the mover may have for not agreeing to the second reading).

The second reading and any proposed amendment are debated together. At the conclusion of the debate, the Presiding Officer first puts the question to dispose of the amendment (if any), and if that is negatived he then puts the question for the second reading. The Clerk then reads out the title of the bill.

(v) *Committee.* After the second reading, the President or the Speaker, as the case may be, leaves the Chair, the Chairman of Committees takes the Chairman's seat at the Table between the Clerk and the Clerk-Assistant, and the House forms itself into a Committee of the Whole for consideration of the Bill in the following order:—Clauses in their numerical order; schedules in their numerical order; postponed clauses; new clauses; new schedules; preamble (if any); and title. In the Senate, new clauses may be considered in their proposed order in the bill, followed by the consideration of postponed clauses. By leave of the Committee, a bill may be taken as a whole or by parts. An amendment may be moved to any part of a bill provided it is relevant to the subject-matter or, in the case of the House of Representatives, within the title.

After a bill has been agreed to in Committee, the Presiding Officer resumes the Chair, and the Chairman reports to him that the Committee has considered the bill and agreed to it with (or without) amendment. The member in charge of the bill then moves that the report be adopted. If it is not possible to complete the Committee consideration that day, the member in charge of the bill moves that progress be reported, and further consideration is made an Order of the Day for the next sitting, and it appears on the Notice Paper as such.

(vi) *Third Reading.* The Standing Orders provide that the third reading of a bill shall be made an Order of the Day for the next sitting, but it is usual for the member to ask leave of the House (or to move the suspension of the Standing Orders if this has not already been agreed to at an earlier stage of the bill) to permit the moving of the third reading forthwith.

\* The exception is a bill proposing an amendment of the Constitution which, in certain circumstances, need pass one House only. Moreover, all Constitution Alteration Bills must be approved by the people at referendum before they can be submitted for the Royal Assent. See section 128 of the Constitution, p. 22.



The motion for third reading may be, but is not frequently, debated. The only amendment allowed is to omit "now" from the question "That this bill be now read a third time" and add "this day six months", which, if carried, finally disposes of the bill. This is rarely moved. When the question for the third reading is agreed to, the Clerk reads the title of the bill.

(vii) *Transmission to other House and Amendments there.* When a bill has passed the House, it is sent to the other House with a message signed by the President or Speaker, as the case may be, requesting the concurrence of the other House. The procedure is similar to that of the originating House, the bill going through first reading, second reading, committee and third reading stages. The other House may make amendments to the bill, in which case it is returned by message to the originating House asking concurrence in such amendments.

(viii) *Assent.* When a bill has finally passed both Houses, it is presented to the Governor-General for assent in the name and on behalf of Her Majesty. Amendments to the bill may be proposed by the Governor-General, but as a general rule any amendments recommended by His Excellency to Parliament (in practice, upon the advice of his Ministers) are of a formal or verbal nature, or such as to correct a mistake or omission or to clarify some provision. Upon assent being given, the bill becomes an Act of Parliament. Notification of the assent is inserted in the Commonwealth Gazette, and the Act is published by the Government Printer.\*

(ix) *Urgency.* If the consideration of a bill proceeded strictly in accordance with the Standing Orders, the introductory proceedings would take place at one sitting and the three readings would take place on separate subsequent days. The Standing Orders, however, may be suspended to permit the rapid passage of a bill, even through all stages on the same day, or it may be dealt with even more expeditiously by providing a time limit (commonly called "the Guillotine") within which the bill must be passed.

**6. The Committees of Supply and Ways and Means.**—The use of Committees of Supply, of Ways and Means, and of the Whole is usually uniform in the lower Houses of all British Parliaments and is based on the practice of the United Kingdom House of Commons, where the committee system was firmly established during the seventeenth century. It meant that the Commons could appoint its own chairman, and that deliberations could be more freely conducted than when the Speaker, who in early times was often the King's nominee, was in the Chair. Furthermore, debates in the House were recorded in the Journals, which the Sovereign often scrutinized. The setting up of committees was a successful attempt by the Parliament to secure freedom in its work without undue interference from the Crown. Previously, members of the House who opposed the wishes of the Sovereign were sometimes severely dealt with.

The Committee of Supply originated in 1620. The gradual transfer of the revenues and the civil list from the Crown to Parliament, and the requests from the Crown for funds, made the Committee of Supply a force in determining what sums the Parliament would grant the Crown. From these origins, we have the present-day Committee of Supply which grants to the Crown sums for services for a particular year.

The Committee of Ways and Means was established in 1641. Its purpose is to authorize payments from funds to meet the Supply granted, generally a grant from the Consolidated Revenue Fund. It is also the source for authorizing taxes or charges. (The Standing Orders Committee of the House of Representatives has recommended the abolition of these Committees and their associated complex financial procedures and the adoption of new simplified procedures appropriate to the modern needs of the House.)

**7. The Party System.**—Political parties are a part of the Australian Parliamentary system, and since federation many shades of political opinion have been represented in both Houses. Four parties are at present represented in the Parliament, plus one Independent.

Following British Parliamentary practice, the party commanding a majority in the popular (lower) house forms the government, or, as is the case at the moment, two parties (Liberal and Country Party) may combine to form a government.

The Government in the 24th Parliament consists of a Liberal-Country Party Coalition, which in the House of Representatives gives it a majority of one on the floor of the House after providing a Speaker.

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\* See footnote on p. 69 relating to the Constitution Alteration bills.

The state of the parties in each House at the end of 1962 was:—

*Senate*—Liberal Party, 24; Country Party, 6; Australian Labor Party, 28; Australian Democratic Labour Party, 1; Independent, 1.

*House of Representatives*—Liberal Party, 45; Country Party, 17; Australian Labor Party, 62 (including Northern Territory and Australian Capital Territory members with restricted voting rights).

### § 3. Parliaments and Elections

1. *Commonwealth*.—(i) *Qualifications for Membership and for Franchise—Commonwealth Parliament*. Qualifications necessary for membership of either House of the Commonwealth Parliament are possessed by any British subject, twenty-one years of age or over, who has resided in the Commonwealth for at least three years and who is, or is qualified to become, an elector of the Commonwealth. Qualifications for Commonwealth franchise are possessed by any British subject, not under twenty-one years of age and not disqualified on other grounds, who has lived in Australia for six months continuously. Residence in a subdivision for a period of one month prior to enrolment is necessary to enable a qualified person to enrol. Enrolment and voting are compulsory except that the compulsory enrolment provisions do not relate to an aboriginal native of Australia. A member of the Defence Forces on service outside Australia who is a British subject not less than 21 years of age and has lived in Australia for six months continuously is entitled to vote at Commonwealth elections, whether enrolled or not.

The principal reasons for disqualification of persons otherwise eligible as members of either Commonwealth House are:—Membership of the other House, allegiance to a foreign power, being attainted of treason, being convicted and under sentence for any offence punishable by imprisonment for one year or longer, being an undischarged bankrupt or insolvent, holding office of profit under the Crown (with certain exceptions), or having pecuniary interest in any agreement with the public service of the Commonwealth except as a member of an incorporated company of more than 25 persons. Persons of unsound mind, attainted of treason, convicted and under sentence for any offence punishable by imprisonment for one year or longer, or persons who are holders of temporary entry permits under the Migration Act, or are prohibited immigrants under that Act, are excluded from the franchise. In the main, these or similar grounds for disqualification apply also to State Parliament membership and franchise.

(ii) *Commonwealth Parliaments and Elections* (see also § 2. The Parliament of the Commonwealth of Australia, on p. 65). From the establishment of the Commonwealth until 1949, the Senate consisted of 36 members, six being returned by each of the original federating States. The Constitution empowers Parliament to increase or decrease the size of the Parliament, and, as the population of the Commonwealth had more than doubled since its inception, the Parliament enacted legislation in 1948 enlarging both Houses of Parliament and providing a representation ratio nearer to the proportion which existed at Federation. Thus, the *Representation Act* 1948 provided that there shall be ten Senators from each State instead of six, increasing the total to 60 Senators.

In accordance with the Constitution, the total number of members of the House of Representatives must be as nearly as practicable double that of the Senate. Consequently, in terms of the Constitution and the *Representation Act* 1905–1938, from the date of the 1949 elections the number of members in the House of Representatives was increased from 74 to 121 (excluding the members for the internal Territories). As the States are represented in the House of Representatives on a population basis, the numbers were increased as follows:—New South Wales—from 28 to 47; Victoria—from 20 to 33; Queensland—from 10 to 18; South Australia—from 6 to 10; and Western Australia—from 5 to 8. Tasmania's representation remained at 5 and the total was increased from 74 to 121. The increase in the number of members of Parliament necessitated a redistribution of seats and a redetermination of electoral boundaries. This was carried out by Distribution Commissioners in each State on a quota basis, but taking into account community or diversity of interest, means of communication, physical features, existing boundaries of divisions and subdivisions, and State electoral boundaries.

The population as disclosed by the Census taken on 30th June, 1954, necessitated a further alteration in representation in the House of Representatives in respect of New South Wales, South Australia, and Western Australia. Representation as from the general election for the House of Representatives on 10th December, 1955, is New South Wales 46, Victoria 33, Queensland 18, South Australia 11, Western Australia 9, Tasmania 5, the total

number of members (excluding the members for the internal Territories) being increased from 121 to 122. A redistribution of the States into electoral divisions was effected by Distribution Commissioners appointed for each State.

The population as disclosed by the Census taken on 30th June, 1961, necessitated further representational changes. New South Wales representation will be 45, Victoria 34, Queensland 17, and Western Australia 8. These changes will become effective for the next general election if the necessary redistribution of the States into electoral divisions has been proclaimed.

Since the general election of 1922, the Northern Territory has been represented by one member in the House of Representatives. The *Australian Capital Territory Representation Act* 1948 gave similar representation to the Australian Capital Territory as from the elections of 1949. The members for the Territories may join in the debates but are not entitled to vote, except on any proposed law which relates solely to the respective Territories, on a motion for the disallowance of any ordinance of the Territory or on any amendment to such motion, or on a motion for the disallowance of a regulation under an ordinance. The Commonwealth Parliament, however, when providing for a Legislative Council for the Northern Territory in 1947, relinquished the power to disallow ordinances for that Territory. As from the date of establishment of the Legislative Council, power to disallow ordinances was vested in the Governor-General in Council. In certain cases, ordinances passed must be reserved for the pleasure of the Governor-General.

The Constitution provides for a minimum of five members for each original State. Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. At elections for Senators, the whole State constitutes the electorate. For the purpose of elections for the House of Representatives, the State is divided into single electorates corresponding in number with the number of members to which the State is entitled. Further information regarding the Senate and the House of Representatives is given in earlier issues of the Official Year Book. See also § 2. The Parliament of the Commonwealth of Australia, p. 65.

There have been twenty-three complete Parliaments since Federation. Until 1927, the Parliament met in Melbourne; it now meets in Canberra, the first meeting at Parliament House, Canberra, being opened by the late King George VI., then Duke of York, on 9th May, 1927.

The twenty-third Parliament opened on 17th February, 1959, and was dissolved on 2nd November, 1961. Elections for both Houses were held on 9th December, 1961, and particulars of electors and voting are given in the following table.

The system of voting for the House of Representatives is preferential. Until 1948, voting for the Senate was also preferential, but the *Commonwealth Electoral Act* 1948, introduced with the *Representation Act* 1948 to enlarge the Commonwealth Parliament (see p. 71), changed the system of scrutiny and counting of votes in Senate elections from preferential to that of proportional representation. For a description of the system, see Official Year Book No. 38, pages 82-3.

#### COMMONWEALTH ELECTIONS, 9th DECEMBER, 1961

Particulars	Electors enrolled			Electors who voted			Percentage of electors who voted		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Senate ..	2,774,934	2,876,627	5,651,561	2,651,645	2,732,705	5,384,350	95.56	95.00	95.27
House of Representatives ..	2,796,742	2,895,622	5,692,364	2,670,801	2,749,747	5,420,548	95.50	94.96	95.22

The twenty-fourth Parliament opened on 20th February, 1962. For particulars of electors enrolled and of electors who voted in the several States and Territories at the various Commonwealth elections, see issue No. 48 and earlier Year Books.

(iii) *Commonwealth Referendums.* According to Section 128 of the Constitution, any proposed law for the alteration of the Constitution, in addition to being passed by an absolute majority of each House of Parliament, must be submitted to a referendum of the electors in each State, and must be approved also by a majority of the States and of the electors who voted, before it can be presented for Royal Assent. So far, 24 proposals have been

submitted to referendums and the consent of the electors has been received in four cases only, the first in relation to the election of Senators in 1906, the second and third in respect of State Debts—one in 1910 and the other in 1928—and the fourth in respect of Social Services in 1946. Details of the various referendums and the voting thereon were given in previous issues of the Official Year Book (*see* List of Special Articles preceding General Index to this volume), and a brief summary was given in Official Year Book No. 41 (p. 67).

2. *State Elections.*—(i) *Upper Houses.* The following table shows particulars of the voting at the most recent elections for the Upper Houses or Legislative Councils in the States of Victoria, South Australia, Western Australia and Tasmania. In New South Wales, members of the Legislative Council are elected at simultaneous sittings of the members of both Houses, in Queensland there has been no Legislative Council since 1922, and in Tasmania three members of the Council are elected annually (but four in each sixth year) and the Council cannot be dissolved as a whole.

STATE UPPER HOUSE ELECTIONS

State	Year of latest election	Electors enrolled—whole State			Contested electorates					
					Electors who voted			Percentage of electors who voted		
		Males	Fe-males	Total	Males	Fe-males	Total	Males	Fe-males	Total
Victoria ..	1961	758,029	796,827	1,554,856	717,755	750,107	1,467,862	94.69	94.14	94.41
South Australia ..	1962	(a)	(a)	611,821	(a)	(a)	98,786	(a)	(a)	83.56
Western Australia ..	1962	611,785	649,354	1,261,139	31,707	14,307	46,014	42.11	40.71	41.66
Tasmania ..	1962	8,087	7,518	15,605	6,372	6,290	12,662	78.79	83.67	81.14

(a) Not available.

(b) Total electors enrolled in contested divisions.

(ii) *Lower Houses.* The following table shows particulars of the voting at the most recent election for the Lower House in each State.

STATE LOWER HOUSE ELECTIONS

State	Year of latest election	Electors enrolled—whole State			Contested electorates					
					Electors who voted			Percentage of electors who voted		
		Males	Fe-males	Total	Males	Fe-males	Total	Males	Fe-males	Total
New South Wales	1962	1,060,658	1,113,110	2,173,768	960,514	996,894	1,957,408	94.38	93.52	93.94
Victoria ..	1961	758,029	796,827	1,554,856	717,755	750,107	1,467,862	94.69	94.14	94.41
Queensland ..	1960	415,222	416,176	831,398	375,799	377,128	752,927	92.59	92.50	92.54
South Australia ..	1962	(a)	(a)	644,197	(a)	(a)	417,462	(a)	(a)	93.98
Western Australia ..	1962	189,517	192,288	381,805	146,788	150,732	297,520	93.26	92.93	93.09
Tasmania ..	1959	89,034	91,310	180,344	85,120	85,439	170,559	95.60	93.57	94.57

(a) Not available.

(b) Total electors in contested districts.

Official Year Book No. 48 and earlier issues contain particulars of the voting at elections for both Upper and Lower State Houses in years prior to those shown above.

3. *The Parliament of New South Wales.*—The two Houses of Parliament are the Legislative Council (or Upper House) and the Legislative Assembly (or Lower House).

The Legislative Council consists of 60 members. At elections held every third year a group of 15 members is elected for 12 years. The electoral body comprises the members, for the time being, of the two Houses of Parliament, who record their votes by secret ballot at simultaneous sittings of both Houses. Casual vacancies are filled by a like election. Any man or woman who is entitled to vote at the election of members of the Legislative Assembly, and has been resident for at least three years in the Commonwealth of Australia, is eligible for election as a member of the Legislative Council. A proposal to abolish the Legislative Council was defeated at a referendum held on 29th April, 1961.

The Legislative Assembly, which is the more important House, consists of 94 members elected on a system of universal adult suffrage, by secret ballot, for a maximum period of three years. Adult British subjects, men and women, are qualified for enrolment as electors when they have resided in the Commonwealth for a period of six months, in the State for three months, and in any subdivision of an electoral district for one month preceding the date of claim for enrolment. Any person qualified to vote at any State election is eligible to be elected to the Legislative Assembly. Casual vacancies may be filled at by-elections.

Persons are disqualified either as parliamentary members or voters for reasons generally the same as those outlined on page 71.

Since the introduction of responsible government in New South Wales, there have been 39 complete Parliaments, the first of which opened on 22nd May, 1856, and was dissolved on 19th December, 1857, while the thirty-ninth was dissolved on 5th February, 1962. The fortieth Parliament opened on 10th April, 1962.

The Legislative Assembly elections of 1920, 1922, and 1925 were contested on the principle of proportional representation, but a reversion to the system of single seats and preferential voting was made at all later appeals to the people. The principle of one elector one vote was adopted in 1894, and that of compulsory enrolment in 1921. Compulsory voting was introduced at the 1930 election. The franchise was extended to women (*Women's Franchise Act*) in 1902, and was exercised by them for the first time in 1904.

**4. The Parliament of Victoria.**—Both of the Victorian legislative Chambers are elective bodies, but there is a considerable difference in the number of members of each House, and there was also, until the *Legislative Council Reform Act* 1950, a difference in the qualifications necessary for members and electors. The number of members in the Upper House is 34, two members being returned for each of the 17 provinces, and in the Lower House, 66, one member being returned for each electorate. In the Legislative Council, the tenure of the seat is for six years, except that one-half of the members who are elected for provinces at any general election for the Council are entitled to hold their seats for a period of only three years, one member for each of the 17 provinces retiring every third year. Members of the Legislative Assembly are elected for the duration of Parliament, which is limited to three years.

Qualifications for membership of the Legislative Council are possessed by any adult natural-born subject of the Queen, or by any adult naturalized for five years and resident in Victoria for two years. Entitlement for enrolment as an elector is extended to every adult natural-born or naturalized subject who has resided in Australia for at least six months continuously and in Victoria for at least three months and in any subdivision for at least one month immediately preceding the date of claim for enrolment. These qualifications for membership and electors apply also in respect of the Legislative Assembly. Reasons for disqualification follow the general pattern for Australia (see p. 71). Prior to 1951, property or certain professional or academic qualifications were required for membership of, and franchise for, the Legislative Council.

Since the introduction of responsible government in Victoria, there have been forty-one complete Parliaments, the first of which opened on 21st November, 1856, and closed on 9th August, 1859, while the forty-first was dissolved on 1st June, 1961. The forty-second Parliament was opened on 1st August, 1961.

Single voting is observed in elections held for either House, plural voting having been abolished for the Legislative Assembly in 1899 and for the Legislative Council in 1937. A preferential system of voting (see *Official Year Book* No. 6, p. 1182) was adopted for the first time in Victoria at the Assembly election held in November, 1911. The franchise was extended to women by the *Adult Suffrage Act* 1908, while voting at elections was made compulsory for the Legislative Assembly in 1926 and for the Legislative Council in 1935.

**5. The Parliament of Queensland.**—The Legislative Council in Queensland was abolished in 1922. The Legislative Assembly is composed of 78 members, each elected for a period of three years and each representing an electoral district. The State is divided into three zones—metropolitan, provincial cities and country, having 28, 12 and 38 electoral districts respectively. Prior to 1960 there were 75 members and electorates.

With certain exceptions, any person qualified to be enrolled for any electoral district is qualified for election to the Legislative Assembly. Any person not under the age of twenty-one years, who is a natural-born or naturalized British subject with continuous residence within Australia for six months, and in an electoral district for three months prior to making a claim for enrolment, is qualified to enrol as an elector unless disentitled on racial or other grounds. The classes of persons not qualified to be elected are similar to those for other Australian Parliaments (see p. 71), but in Queensland, Ministers of Religion are not qualified for election.

Since the establishment of responsible government in Queensland, there have been 35 complete Parliaments, the last of which was dissolved on 13th April, 1960. Opinions differ regarding the opening date of the first Queensland Parliament. According to the Votes and Proceedings of the Legislative Assembly, the House met for the first time on 22nd May, 1860, when the members were sworn and the Speaker elected. The Governor, however, was unable to be present on that date, but he duly attended on 29th May, 1860, and delivered the Opening Address. The thirty-sixth Parliament was opened on 23rd August, 1960.

The election of 1907 was the first State election in Queensland at which women voted, the right being conferred under the *Elections Acts Amendment Act 1905*. At the elections held in May, 1915, the principle of compulsory voting was introduced for the first time in Australia. A system of optional preferential voting operated for many years, but, in 1942, this was abolished and that of election of the candidate obtaining the highest number of votes in the electorate now operates.

6. **The Parliament of South Australia.**—In this State, there is a Legislative Council composed of 20 members and a House of Assembly with 39 members, both Chambers being elective. For the Legislative Council, the State is divided into five districts each returning four members. The term of office is six years, two members for each district retiring at the end of every three years. Thirty-nine districts return one member each to the House of Assembly; prior to 1938 there were 46 members representing nineteen districts. The term of office for the House of Assembly is three years.

Any person who is at least 30 years of age, is a British subject or legally made a denizen of the State and who has resided in the State for at least three years is qualified for membership of the Legislative Council. Qualifications for the Council franchise are that a person is at least 21 years of age, a British subject, an inhabitant of the State with residence for at least six months prior to the registration of the electoral claim, and that he or she has had certain war service, or possesses property qualifications relating to ownership, leaseholding, or inhabitant occupancy. Any person qualified and entitled to be registered as an elector for the House of Assembly is qualified and entitled for election as a member of that House. Qualifications for enrolment as an elector for the House of Assembly are that a person is at least 21 years of age, is a British subject, and has lived continuously in Australia for at least six months, in the State for three months and in an Assembly subdivision for one month immediately preceding the date of claim for enrolment. Provisions in the Constitution for disqualification from membership or from the franchise in respect of either House follow the usual pattern for Australia (see p. 71).

Since the inauguration of responsible government in South Australia, there have been 36 complete Parliaments, the first of which was opened on 22nd April, 1857. The thirty-sixth Parliament closed on 28th February, 1962, and the thirty-seventh was opened on 12th April, 1962. The duration of the twenty-eighth Parliament was extended from three to five years by the provisions of the *Constitution (Quinquennial Parliament) Act 1933*, but this Act was repealed by the *Constitution Act Amendment Act (No. 2) 1939*, and the three-year term was reverted to.

South Australia was the first of the States to grant women's suffrage (under the *Constitution Amendment Act 1894*), the franchise being exercised by women for the first time at the Legislative Assembly election on 25th April, 1896. Compulsory voting for the House of Assembly was first adopted at the 1944 election. A system of preferential voting is in operation.

7. **The Parliament of Western Australia.**—In this State, both Chambers are elective. For the Legislative Council, there are 30 members, each of the ten provinces returning three members. One member for each province retires at the end of every two years. At each biennial election, the member elected holds office for a term of six years, and automatically retires at the end of that period. The Legislative Assembly is composed of 50 members, one member being returned by each electoral district. Members of the Legislative Assembly are elected for three years.

Qualifications required for membership of the Legislative Council are the age of at least 30 years, residence in Western Australia for two years and being a natural-born British subject or naturalized for five years prior to election and resident in the State for that period. Qualifications required for Council franchise are the age of at least 21 years, residence in Western Australia for six months, being a natural-born British subject or naturalized for twelve months, and certain property qualifications relating to freehold, leasehold, or householder occupancy. Qualifications required for membership of the legislative

Assembly are the age of at least 21 years, residence in Western Australia for twelve months and being a natural-born British subject or naturalized for five years and resident in the State for two years prior to election. Qualifications required for the franchise are the age of at least 21 years, residence in Western Australia for six months and in an electoral district continuously for three months, and being a natural-born or naturalized British subject. Persons may be disqualified as members or voters for reasons similar to those for other Australian Parliaments (*see* p. 71).

Since the establishment of responsible government in Western Australia, there have been 23 complete Parliaments, the first of which was opened on 30th December, 1890. The twenty-third Parliament dissolved on 31st January, 1962, and the twenty-fourth was opened on 26th July, 1962. A preferential system of voting is in use in Western Australia.

Women's suffrage was granted by the Electoral Act of 1899. The first woman member to be elected to an Australian Parliament was returned at the 1921 election in this State. Voting for the Legislative Assembly was made compulsory in December, 1936, the first elections for which the provision was in force being those held on 18th March, 1939.

**8. The Parliament of Tasmania.**—In Tasmania, there are two legislative Chambers, the Legislative Council and the House of Assembly, both bodies being elective. In accordance with the *Constitution Act* 1946, the Council now consists of nineteen members, elected for six years and returned from nineteen divisions. Three members retire annually (except in the 1953 elections and in each sixth successive year thereafter, when four retire) and the Council cannot be dissolved as a whole. There are five House of Assembly divisions, corresponding to the Commonwealth electoral divisions, each returning seven members elected under a system of proportional representation which first came into force at the 1909 elections. By the *Constitution Act* 1936, the life of the Assembly was extended from three to five years.

Persons qualified for election to the Legislative Council must be at least 25 years of age and qualified to vote as Council electors, have been resident in Tasmania for a period of five years at any one time or at least two years immediately preceding the election, and be natural-born subjects of the Queen or naturalized for at least five years. An elector for the Council must be at least 21 years of age, a natural-born or naturalized subject and resident in Tasmania for a period of twelve months, with certain freehold or occupancy property qualifications, or the spouse of a person qualified to vote as the owner or occupier of property, or with certain academic, professional, defence force, or war service qualifications. For the House of Assembly, members must be at least 21 years of age, have been resident in Tasmania for a period of five years at any one time or for a period of two years immediately preceding the election, and be natural-born subjects of the Queen or naturalized for a period of five years. Electors must be at least 21 years of age, natural-born or naturalized subjects and resident in Tasmania for a period of six months continuously. Reasons for disqualification of members or voters are similar to those for other Australian Parliaments (*see* p. 71).

The first Tasmanian Parliament opened on 2nd December, 1856, and closed on 8th May, 1861. There have been 32 complete Parliaments since the inauguration of responsible government, the thirty-second having been dissolved on 9th April, 1959. The thirty-third Parliament was opened on 2nd June, 1959.

The suffrage was granted to women under the *Constitution Amendment Act* 1903 and compulsory voting for both Houses came into force on the passing of the *Electoral Act* in 1928. The system of voting is, for the Council, by single transferable vote, and for the Assembly, proportional representation by single transferable vote.

#### § 4. Administration and Legislation

**1. The Commonwealth Parliaments.**—The first Parliament of the Commonwealth was convened by proclamation dated 29th April, 1901, by His Excellency the Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on 9th May, 1901, by H.R.H. the Duke of Cornwall and York, who had been sent to Australia for that purpose by His Majesty the King. The Rt. Hon. Sir Edmund Barton, G.C.M.G., K.C., was Prime Minister.

The following table shows the number and duration of Parliaments since Federation.

## COMMONWEALTH PARLIAMENTS

Number of Parliament	Date of opening	Date of dissolution
First .. .. .	9th May, 1901 .. ..	23rd November, 1903
Second .. .. .	2nd March, 1904 .. ..	5th November, 1906
Third .. .. .	20th February, 1907 .. ..	19th February, 1910
Fourth .. .. .	1st July, 1910 .. ..	23rd April, 1913
Fifth .. .. .	9th July, 1913 .. ..	30th July, 1914(a)
Sixth .. .. .	8th October, 1914 .. ..	26th March, 1917
Seventh .. .. .	14th June, 1917 .. ..	3rd November, 1919
Eighth .. .. .	26th February, 1920 .. ..	6th November, 1922
Ninth .. .. .	28th February, 1923 .. ..	3rd October, 1925
Tenth .. .. .	13th January, 1926 .. ..	9th October, 1928
Eleventh .. .. .	9th February, 1929 .. ..	16th September, 1929
Twelfth .. .. .	20th November, 1929 .. ..	27th November, 1931
Thirteenth .. .. .	17th February, 1932 .. ..	7th August, 1934
Fourteenth .. .. .	23rd October, 1934 .. ..	21st September, 1937
Fifteenth .. .. .	30th November, 1937 .. ..	27th August, 1940
Sixteenth .. .. .	20th November, 1940 .. ..	7th July, 1943
Seventeenth .. .. .	23rd September, 1943 .. ..	16th August, 1946
Eighteenth .. .. .	6th November, 1946 .. ..	31st October, 1949
Nineteenth .. .. .	22nd February, 1950 .. ..	19th March, 1951(a)
Twentieth .. .. .	12th June, 1951 .. ..	21st April, 1954
Twenty-first .. .. .	4th August, 1954 .. ..	4th November, 1955
Twenty-second .. .. .	15th February, 1956 .. ..	14th October, 1958
Twenty-third .. .. .	17th February, 1959 .. ..	2nd November, 1961
Twenty-fourth .. .. .	20th February, 1962 .. ..	

(a) A dissolution of both the Senate and the House of Representatives was granted by the Governor-General, acting on the advice of the Cabinet and under section 57 of the Constitution.

2. **Governors-General and Commonwealth Ministries.**—(i) *Governors-General.* The following statement shows the names of the Governors-General since the inception of the Commonwealth.

## GOVERNORS-GENERAL

- Rt. Hon. JOHN ADRIAN LOUIS, EARL OF HOPETOUN (afterwards MARQUIS OF LINLITHGOW), P.C., K.T., G.C.M.G., G.C.V.O. From 1st January, 1901, to 9th January, 1903.
- Rt. Hon. HALLAM, BARON TENNYSON, P.C., G.C.M.G. From 17th July, 1902, to 9th January, 1903, (Acting).
- Rt. Hon. HALLAM, BARON TENNYSON, P.C., G.C.M.G. From 9th January, 1903, to 21st January, 1904.
- Rt. Hon. HENRY STAFFORD, BARON NORTHCOTE, P.C., G.C.M.G., G.C.I.E., C.B. From 21st January, 1904, to 9th September, 1908.
- Rt. Hon. WILLIAM HUMBLE, EARL OF DUDLEY, P.C., G.C.B., G.C.M.G., G.C.V.O. From 9th September, 1908, to 31st July, 1911.
- Rt. Hon. THOMAS, BARON DENMAN, P.C., G.C.M.G., K.C.V.O. From 31st July, 1911, to 18th May, 1914.
- Rt. Hon. SIR RONALD CRAUFURD MUNRO FERGUSON (afterwards VISCOUNT NOVAR OF RAITH), G.C.M.G. From 18th May, 1914, to 6th October, 1920.
- Rt. Hon. HENRY WILLIAM, BARON FORSTER OF LEFE, P.C., G.C.M.G. From 6th October, 1920, to 8th October, 1925.
- Rt. Hon. JOHN LAWRENCE, BARON STONEHAVEN, P.C., G.C.M.G., D.S.O. From 8th October, 1925, to 22nd January, 1931.
- Rt. Hon. SIR ISAAC ALFRED ISAACS, P.C., G.C.B., G.C.M.G., K.C. From 22nd January, 1931, to 23rd January, 1936.
- General the Rt. Hon. ALEXANDER GORE ARKWRIGHT, BARON GOWRIE, V.C., P.C., G.C.M.G., C.B., D.S.O., K.G.St.J. From 23rd January, 1936, to 30th January, 1945.
- His Royal Highness PRINCE HENRY WILLIAM FREDERICK ALBERT, DUKE OF GLOUCESTER, EARL OF ULSTER AND BARON CULLODEN, K.G., K.T., K.P., P.C., G.C.B., G.C.M.G., G.C.V.O., General in the Army, Air Chief Marshal in the Royal Air Force, One of His Majesty's Personal Aides-de-Camp. From 30th January, 1945 to 11th March, 1947.
- Rt. Hon. SIR WILLIAM JOHN MCKELL, G.C.M.G., Q.C. From 11th March, 1947, to 8th May, 1953.
- Field-Marshal SIR WILLIAM JOSEPH SLIM (afterwards VISCOUNT SLIM OF YARRALUMLA), K.G., G.C.B., G.C.M.G., G.C.V.O., G.B.E., D.S.O., M.C., K.St.J. From 8th May, 1953, to 2nd February 1960.
- Rt. Hon. WILLIAM SHEPHERD, VISCOUNT DUNROSSIL, P.C., G.C.M.G., M.C., K.St.J., Q.C. From 2nd February, 1960, to 3rd February, 1961.
- Rt. Hon. WILLIAM PHILIP, VISCOUNT DE L'ISLE, V.C., P.C., G.C.M.G., G.C.V.O., K.St.J. From 3rd August, 1961.



(ii) *Administrators.* In addition to the holders of the office of Governor-General listed above, certain persons have, from time to time, been appointed as Administrator of the Government of the Commonwealth during the absence from Australia or illness of the Governor-General. The following is a list of such appointments.

	Term of office
Rt. Hon. Frederic John Napier, Baron Chelmsford, K.C.M.G.	21st December, 1909, to 27th January, 1910
Lieut.-Colonel the Rt. Hon. Arthur Herbert Tennyson, Baron Somers, K.C.M.G., D.S.O., M.C.	3rd October, 1930, to 22nd January, 1931
Captain the Rt. Hon. William Charles Arcedeckne Vanneck, Baron Huntingfield, K.C.M.G., K.St.J.	29th March, 1938, to 24th September, 1938
Major-General Sir Winston Joseph Dugan, G.C.M.G., C.B., D.S.O.	5th September, 1944, to 30th January, 1945; 18th January, 1947, to 11th March, 1947
General* Sir John Northcott, K.C.M.G., C.B., M.V.O.†	19th July, 1951, to 14th December, 1951; 30th July, 1956, to 22nd October, 1956
General Sir Reginald Alexander Dallas Brooks, K.C.B., G.C.M.G., K.C.V.O., D.S.O. K.St.J.	8th January, 1959, to 16th January, 1959; 3rd February, 1961, to 3rd August, 1961; 5th June, 1962, to 4th October, 1962; 21st November, 1962, to 19th December, 1962

(iii) *Commonwealth Ministries.* (a) *Names and Tenure of Office, 1901 to 1963.* The following list shows the name of each Commonwealth Ministry to hold office since 1st January, 1901, and the limits of its term of office.

#### COMMONWEALTH MINISTRIES

- (i) BARTON MINISTRY, 1st January, 1901, to 24th September, 1903.
- (ii) DEAKIN MINISTRY, 24th September, 1903, to 27th April, 1904.
- (iii) WATSON MINISTRY, 27th April, 1904, to 17th August, 1904.
- (iv) REID-MCLEAN MINISTRY, 18th August, 1904, to 5th July, 1905.
- (v) DEAKIN MINISTRY, 5th July, 1905, to 13th November, 1908.
- (vi) FISHER MINISTRY, 13th November, 1908, to 1st June, 1909.
- (vii) DEAKIN MINISTRY, 2nd June, 1909, to 29th April, 1910.
- (viii) FISHER MINISTRY, 29th April, 1910, to 24th June, 1913.
- (ix) COOK MINISTRY, 24th June, 1913, to 17th September, 1914.
- (x) FISHER MINISTRY, 17th September, 1914, to 27th October, 1915.
- (xi) HUGHES MINISTRY, 27th October, 1915, to 14th November, 1916.
- (xii) HUGHES MINISTRY, 14th November, 1916, to 17th February, 1917.
- (xiii) HUGHES MINISTRY, 17th February, 1917, to 10th January, 1918.
- (xiv) HUGHES MINISTRY, 10th January, 1918, to 9th February, 1923.
- (xv) BRUCE-PAGE MINISTRY, 9th February, 1923, to 22nd October, 1929.
- (xvi) SCULLIN MINISTRY, 22nd October, 1929, to 6th January, 1932.
- (xvii) LYONS MINISTRY, 6th January, 1932, to 7th November, 1938.
- (xviii) LYONS MINISTRY, 7th November, 1938, to 7th April, 1939.
- (xix) PAGE MINISTRY, 7th April, 1939, to 26th April, 1939.
- (xx) MENZIES MINISTRY, 26th April, 1939, to 14th March, 1940.
- (xxi) MENZIES MINISTRY, 14th March, 1940, to 28th October, 1940.
- (xxii) MENZIES MINISTRY, 28th October, 1940, to 29th August, 1941.
- (xxiii) FADDEN MINISTRY, 29th August, 1941, to 7th October, 1941.
- (xxiv) CURTIN MINISTRY, 7th October, 1941, to 21st September, 1943.
- (xxv) CURTIN MINISTRY, 21st September, 1943, to 6th July, 1945.
- (xxvi) FORDE MINISTRY, 6th July, 1945, to 13th July, 1945.
- (xxvii) CHIFLEY MINISTRY, 13th July, 1945, to 1st November, 1946.

\* Lieutenant-General Sir John Northcott was granted honorary rank of General while administering the Government of the Commonwealth. † K.C.V.O., 1954.

COMMONWEALTH MINISTRIES—*continued*

- (xxviii) CHIFLEY MINISTRY, 1st November, 1946, to 19th December, 1949.  
 (xxix) MENZIES MINISTRY, 19th December, 1949, to 11th May, 1951.  
 (xxx) MENZIES MINISTRY, 11th May, 1951, to 11th January, 1956.  
 (xxxi) MENZIES MINISTRY, 11th January, 1956, to 10th December, 1958.  
 (xxxii) MENZIES MINISTRY, 10th December, 1958.

(b) *Names of Holders of Ministerial Office, to 31st December, 1962.* In Official Year Book No. 17, 1924, the names are given of each Ministry up to the Bruce-Page Ministry (9th February, 1923, to 22nd October, 1929), together with the names of the successive holders of portfolios therein, and issue No. 39 contains a list, commencing with the Bruce-Page Ministry, which covers the period between the date on which it assumed power, 9th February, 1923, and 31st July, 1951, showing the names of all persons who held office in each Ministry during that period.

This issue shows only particulars of the latest Menzies Ministry, as constituted on 31st March, 1962.

## MENZIES MINISTRY—from 10th December, 1958

(Portfolios from 4th August, 1962)

(The State in which each Minister's electorate is situated is shown in parenthesis.)

## \*Prime Minister—

THE RT. HON. SIR ROBERT MENZIES,  
K.T., C.H., Q.C., M.P. (Vic.).

## \*Minister for Trade—

THE RT. HON. J. McEWEN, M.P. (Vic.).

## \*Treasurer—

THE RT. HON. H. E. HOLT, M.P. (Vic.).

\*Vice-President of the Executive Council; and  
Minister for National Development—

SENATOR THE HON. SIR WILLIAM  
SPOONER, K.C.M.G., M.M. (N.S.W.).

## \*Minister for Defence—

THE HON. A. G. TOWNLEY, M.P. (Tas.).

## \*Minister for Territories—

THE HON. P. M. C. HASLUCK, M.P.  
(W.A.).

## \*Minister for Labour and National Service—

THE HON. W. McMAHON, M.P.  
(N.S.W.).

## \*Minister for Civil Aviation—

SENATOR THE HON. S. D. PALTRIDGE  
(W.A.).

## \*Postmaster-General—

THE HON. C. W. DAVIDSON, O.B.E.,  
M.P. (Qld.).

## \*Minister for Immigration—

THE HON. A. R. DOWNER, M.P. (S.A.).

\*Minister for External Affairs; and Attorney-  
General—

THE HON. SIR GARFIELD BARWICK, Q.C.,  
M.P. (N.S.W.).

## \*Minister for Primary Industry—

THE HON. C. F. ADERMANN, M.P.  
(Qld.).

## Minister for the Army—

THE HON. J. O. CRAMER, M.P. (N.S.W.).

## Minister for Social Services—

THE HON. H. S. ROBERTON, M.P.  
(N.S.W.).

## Minister for Customs and Excise—

SENATOR THE HON. N. H. D. HENTY  
(Tas.).

Minister for the Interior; Minister for Works;  
and Minister assisting the Attorney-  
General—

THE HON. G. FREETH, M.P. (W.A.).

Minister for the Navy; Minister-in-Charge  
of C.S.I.R.O.; and Minister assisting  
the Minister for External Affairs—

SENATOR THE HON. J. G. GORTON  
(Vic.).

## Minister for Shipping and Transport—

THE HON. H. F. OPPERMAN, O.B.E.,  
M.P. (Vic.).

## Minister for Health—

SENATOR THE HON. H. W. WADE  
(Vic.).

## Minister for Supply—

THE HON. A. FAIRHALL, M.P. (N.S.W.).

## Minister for Repatriation—

THE HON. R. W. C. SWARTZ, M.B.E.,  
E.D., M.P. (Qld.).

## Minister for Air—

THE HON. D. E. FAIRBAIRN, D.F.C.,  
M.P. (N.S.W.).

\* Minister in the Cabinet.

(iv) *Commonwealth Ministers of State.* In Official Year Book No. 38, a statement is included showing the names of the Ministers of State who had administered the several Departments during the period 1st April, 1925, to 31st December, 1949 (pp. 74-79). This is in continuation of a similar statement covering the period from the inauguration of the Commonwealth Government to 1925 which appears in Official Year Book No. 18.

3. **Governors and State Ministers.**—The names of the Governors and members of the Ministries in each State in December, 1962, are shown in the following statement.

### NEW SOUTH WALES

**Governor**—LIEUT.-GENERAL SIR ERIC WINSLOW WOODWARD, K.C.M.G., C.B., C.B.E., D.S.O., K.St.J.

*Ministry (from 14th March, 1962)*

*Premier—*

THE HON. R. J. HEFFRON, M.L.A.

*Deputy Premier, Treasurer and Minister for Industrial Development and Decentralization—*

THE HON. J. B. RENSHAW, M.L.A.

*Attorney-General and Vice-President of the Executive Council—*

THE HON. R. R. DOWNING, M.L.C.

*Chief Secretary and Minister for Tourist Activities—*

THE HON. C. A. KELLY, M.L.A.

*Minister for Local Government and Minister for Highways—*

THE HON. P. D. HILLS, M.L.A.

*Minister for Health—*

THE HON. W. F. SHEAHAN, Q.C., M.L.A.

*Minister for Child Welfare and Minister for Social Welfare—*

THE HON. F. H. HAWKINS, M.L.A.

*Minister for Agriculture, and Minister for Conservation—*

THE HON. A. G. ENTICKNAP, M.L.A.

*Minister for Housing and Minister for Co-operative Societies—*

THE HON. A. LANDA, M.L.A.

*Minister for Education—*

THE HON. E. WETHERELL, M.L.A.

*Minister for Labour and Industry—*

THE HON. J. J. MALONEY, M.L.C.

*Minister for Mines—*

THE HON. J. B. SIMPSON, M.L.A.

*Minister for Transport—*

THE HON. J. M. A. McMAHON, M.L.A.

*Minister for Public Works—*

THE HON. P. N. RYAN, M.L.A.

*Minister of Justice—*

THE HON. N. J. MANNIX, M.L.A.

*Minister for Lands—*

THE HON. K. C. COMPTON, M.L.A.

### VICTORIA

**Governor**—GENERAL SIR REGINALD ALEXANDER DALLAS BROOKS, K.C.B., G.C.M.G., K.C.V.O., D.S.O., K.St.J.

*Ministry (from 7th June, 1955)*

*(Portfolios as from 4th September, 1962)*

*Premier and Treasurer—*

THE HON. H. E. BOLTE, M.P.

*Chief Secretary and Attorney-General—*

THE HON. A. G. RYLAH, E.D., M.P.

*Minister of Transport—*

THE HON. E. L. MEAGHER, M.P.

*Minister of Agriculture and a Vice-President of the Board of Land and Works—*

THE HON. G. L. CHANDLER, C.M.G., M.L.C.

*Commissioner of Public Works—*

THE HON. H. R. PETTY, M.P.

*Minister of Health—*

THE HON. R. W. MACK, M.L.C.

*Minister of Water Supply and Minister of Mines—*

THE HON. W. J. MIBUS, M.P.

*Minister of Immigration—*

THE HON. R. J. HAMER, E.D., M.L.C.

*Minister of Education—*

THE HON. J. S. BLOOMFIELD, M.P.

*Minister of Housing and Minister of Forests—*

THE HON. L. H. S. THOMPSON, M.L.C.

*Commissioner of Crown Lands and Survey, Minister of Soldier Settlement and Minister for Conservation—*

THE HON. K. H. TURNBULL, M.P.

*Minister of Labour and Industry and Minister of Electrical Undertakings—*

THE HON. G. C. REID, M.P.

*Minister for Local Government—*

THE HON. M. V. PORTER, M.P.

*Minister of State Development—*

THE HON. A. J. FRASER, M.C., M.P.

GOVERNORS AND STATE MINISTERS—*continued*

## QUEENSLAND

Governor—COLONEL SIR HENRY ABEL SMITH, K.C.M.G., K.C.V.O., D.S.O.

*Ministry (from 16th June, 1960)**(Portfolios as from 4th May, 1961)*

*Premier and Chief Secretary; and Vice-President of the Executive Council—*  
THE HON. G. F. R. NICKLIN, M.M., M.L.A.

*Minister for Justice and Attorney-General—*  
THE HON. A. W. MUNRO, M.L.A.

*Minister for Education and Migration—*  
THE HON. J. C. A. PIZZIE, M.L.A.

*Treasurer and Minister for Housing—*  
THE HON. T. A. HILEY, M.L.A.

*Minister for Labour and Industry—*  
THE HON. K. J. MORRIS, M.L.A.

*Minister for Development, Mines, Main Roads and Electricity—*  
THE HON. E. EVANS, M.L.A.

*Minister for Agriculture and Forestry—*  
THE HON. O. O. MADSEN, M.L.A.

*Minister for Health and Home Affairs—*  
THE HON. H. W. NOBLE, M.L.A.

*Minister for Transport—*  
THE HON. G. W. W. CHALK, M.L.A.

*Minister for Public Lands and Irrigation—*  
THE HON. A. R. FLETCHER, M.L.A.

*Minister for Public Works and Local Government—*  
THE HON. H. RICHTER, M.L.A.

## SOUTH AUSTRALIA

Governor—LIEUT.-GENERAL SIR EDRIC MONTAGU BASTYAN, K.B.E., C.B.

*Ministry (from 15th May, 1944)**(Portfolios as from 8th January, 1963)*

*Premier, Treasurer and Minister of Immigration—*  
THE HON. SIR THOMAS PLAYFORD, G.C.M.G., M.P.

*Chief Secretary, Minister of Health and Minister of Mines—*  
THE HON. SIR LYELL MCEWIN, K.B.E., M.L.C.

*Attorney-General and Minister of Labour and Industry—*  
THE HON. C. D. ROWE, M.L.C.

*Minister of Works and Minister of Marine—*  
THE HON. G. G. PEARSON, M.P.

*Minister of Agriculture and Minister of Forests—*  
THE HON. D. N. BROOKMAN, M.P.

*Minister of Education—*  
THE HON. SIR BADEN PATTINSON, K.B.E., M.P.

*Minister of Local Government, Minister of Roads and Minister of Railways—*  
THE HON. N. L. JUDE, M.L.C.

*Minister of Lands, Minister of Repatriation and Minister of Irrigation—*  
THE HON. P. H. QUIRKE, M.P.

## WESTERN AUSTRALIA

Governor—LIEUT.-GENERAL SIR CHARLES GAIRDNER, K.C.M.G., K.C.V.O., K.B.E., C.B.

*Ministry (from 12th April, 1962)*

*Premier, Treasurer and Minister for Tourists—*  
THE HON. D. BRAND, M.L.A.

*Deputy Premier, Minister for Agriculture and Electricity—*  
THE HON. C. D. NALDER, M.L.A.

*Minister for Industrial Development, Railways and the North West—*  
THE HON. C. W. M. COURT, O.B.E., M.L.A.

*Minister for Education and Native Welfare—*  
THE HON. E. H. M. LEWIS, M.L.A.

*Minister for Works, Water Supplies and Labour—*  
THE HON. G. P. WILD, M.B.F., M.L.A.

*Minister for Mines, Housing and Justice—*  
THE HON. A. F. GRIFFITH, M.L.C.

*Minister for Lands, Forests and Immigration—*  
THE HON. W. S. BOVELL, M.L.A.

*Chief Secretary and Minister for Health and Fisheries—*  
THE HON. R. HUTCHINSON, D.F.C., M.L.A.

*Minister for Local Government, Town Planning and Child Welfare—*  
THE HON. L. A. LOGAN, M.L.C.

*Minister for Transport and Police—*  
THE HON. J. F. CRAIG, M.L.A.

GOVERNORS AND STATE MINISTERS—*continued*

## TASMANIA

*Governor*—THE RT. HON. THOMAS GODFREY POLSON, BARON ROWALLAN K.T., K.B.E., M.C.

*Ministry (from 19th September, 1961)*

<i>Premier, Treasurer and Minister for Mines—</i>	<i>Chief Secretary—</i>
THE HON. E. E. REECE, M.H.A.	THE HON. J. B. CONNOLLY, M.L.C.
<i>Deputy Premier and Attorney-General—</i>	<i>Minister for Housing and Forests—</i>
THE HON. R. F. FAGAN, M.H.A.	THE HON. S. V. WARD, M.H.A.
<i>Minister for Lands and Works—</i>	<i>Minister for Transport and Police—</i>
THE HON. D. A. CASHION, M.H.A.	THE HON. H. J. McLOUGHLIN, M.H.A.
<i>Minister for Education—</i>	<i>Minister for Health—</i>
THE HON. W. A. NEILSON, M.H.A.	THE HON. W. P. McNEIL, M.H.A.
<i>Minister for Agriculture and Tourists—</i>	
THE HON. A. C. ATKINS, M.H.A.	

4. **Leaders of the Opposition, Commonwealth and State Parliaments.**—The Leader of the Opposition plays an important part in the Party system of government which operates in the Australian Parliaments. The following list gives the names of the holders of this position in each of the Parliaments in December, 1962.

**Leader of the Opposition, Commonwealth and State Parliaments—**

*Commonwealth*—The Hon. A. A. Calwell, M.P.

*New South Wales*—R. W. Askin, M.L.A.

*Victoria*—The Hon. C. P. Stoneham, M.P.

*Queensland*—The Hon. J. E. Duggan, M.L.A.

*South Australia*—F. H. Walsh, M.P.

*Western Australia*—The Hon. A. R. G. Hawke, M.L.A.

*Tasmania*—The Hon. W. A. Bethune, M.H.A.

5. **The Course of Legislation.**—The actual legislation by the Commonwealth Parliament during 1962 is indicated in alphabetical order in "The Acts of the Parliament of the Commonwealth of Australia passed during the year 1962 in the First Session of the Twenty-fourth Parliament of the Commonwealth, with Appendix, Tables and Index".

A chronological table of Acts passed from 1901 to 1962 showing how they are affected by subsequent legislation or lapse of time is also given, and, further, a table of Commonwealth legislation passed from 1901 to 1962 in relation to the several provisions of the Constitution is furnished in the same volume. Reference should be made to these for complete information.

6. **Legislation during 1962.**—The Acts passed by the Commonwealth Parliament during the year 1962 are listed hereunder. In most cases the title of the Act indicates the general scope of the Act, but in some instances brief explanatory notes have been added. Appropriate chapters of this Year Book should be referred to for further information which may be available there.

The total enactments of the Commonwealth Parliament for a number of years at fairly even intervals since 1901 show a general increase. Seventeen Acts were passed in 1901, 36 in 1914, 38 in 1927, 87 in 1939 and 108 in 1962.

*Commonwealth Legislation passed during 1962.*

*Air Navigation (Charges) Act* 1962 (No. 78) increased the charges payable by airlines by 10 per cent.

*Appropriation Act* (No. 2) 1961–1962 (No. 54) *Appropriation Act* 1962–1963 (No. 64).

*Appropriation (Works and Services) Act* (No. 2) 1961–1962 (No. 55); *Appropriation (Works and Services) Act* 1962–1963 (No. 65).

*Audit Act* 1962 (No. 74) amended the *Audit Act* 1901–1961 to sanction the charging of refunds of revenue under discretionary authority to the relevant appropriation.

*Australian Capital Territory Electricity Supply Act* 1962 (No. 76) established an authority to take over the generation, supply, and reticulation of electric power in the Australian Capital Territory.

*Australian Coastal Shipping Commission Act* 1962 (No. 87) amended the *Australian Coastal Shipping Commission Act* 1956 to increase the Commission's borrowing limits from £1 million to £5 million.

*Australian Universities Commission Act* 1962 (No. 28) amended the *Australian Universities Commission Act* 1959, increasing the number of members of the Commission from five to seven.

*Australian War Memorial Act* 1962 (No. 85) amended the *Australian War Memorial Act* 1952 by providing for management of the Memorial by a board of trustees in lieu of the board of management as previously constituted.

*Brigalow Lands Agreement Act* 1962 (No. 103) approved an agreement between the Commonwealth and the State of Queensland to provide assistance to the State for the development of 4.3 million acres of land for grazing beef cattle and developing the beef cattle industry.

*Broadcasting and Television Act* 1962 (No. 96).\*

*Civil Aviation (Carriers' Liability) Act* 1962 (No. 38) amended the *Civil Aviation (Carriers' Liability) Act* 1959 to give effect to the Guadalajara Convention for the unification of certain rules relating to international carriage by air performed by a person other than the contracting carrier.

*Coal Loading Works Agreement (Queensland) Act* 1962 (No. 45) provided for assistance by the Commonwealth to the State of Queensland of half the cost of constructing coal loading works at Gladstone, with a maximum of £200,000.

*Commonwealth Banks Act* 1962 (No. 3) amended the *Commonwealth Banks Act* 1959–1961 by increasing the capital of the Commonwealth Development Bank of Australia by £5 million.

*Commonwealth Electoral Act* 1962 (No. 31) amended the *Commonwealth Electoral Act* 1918–1961 by giving aboriginal natives the right to enrol and vote at Commonwealth elections.

*Commonwealth Employees Compensation Act* 1962 (No. 94)\*.

*Copper and Brass Strip Bounty Act* 1962 (No. 81) provided for a bounty of £45 per ton on the production of copper or brass strip for use in Australia.

*Customs Tariff* 1962 (No. 22); *Customs Tariff* (Nos. 2 to 5) 1962 (Nos. 32, 33, 60 and 71).

*Customs Tariff (Canada Preference)* 1962 (No. 34); *Customs Tariff (Canada Preference)* (No. 2) 1962 (No. 61).

*Customs Tariff (Federation of Rhodesia and Nyasaland Preference)* 1962 (No. 36).

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\* These Acts amended existing legislation to extend the appropriate repatriation benefits to members of the Australian forces serving in the Republic of Viet Nam where they have been exposed to additional risk beyond that of normal peace-time service.

*Customs Tariff (New Zealand Preference) (Nos. 1-4) 1962 (Nos. 23, 35, 62 and 72).*

*Dairy Produce Export Charge Act 1962 (No. 48)* provided for the imposition of a charge to be levied and paid on all dairy produce exported from the Commonwealth.

*Dairy Produce Export Control Act 1962 (No. 49).*

*Dairying Industry Act 1962 (No. 46)* made provision for the payment of bounties on the production of butter, cheese, and certain other butter fat products.

*Defence Forces Retirement Benefits Act 1962 (No. 67)* adjusted the pension entitlements of the majority of the contributors to the Defence Forces Retirement Benefits Fund in respect of salary increases which have taken place since 1959.

*Derby Jetty Agreement Act 1962 (No. 88)* approved an agreement between the Commonwealth and Western Australia for financial assistance to the State towards the cost of construction of a new jetty at Derby.

*Estate Duty Assessment Act 1962 (No. 97).\**

*Excise Act 1962 (No. 37); Excise Tariff 1962 (No. 73).*

*Gold Mines Development Assistance Act 1962 (No. 102)* provided for additional assistance to the gold mining industry by payment to approved mines of allowances for expenditure on development. *Gold Mining Industry Assistance Act 1962 (No. 52)* extended the period of operation of the *Gold Mining Industry Assistance Act 1954-1961* for a further three years.

*Honey Industry Act 1962 (No. 105)* provided for the establishment of an Australian Honey Board with powers to engage in promotional and research activities and to regulate Australian exports of honey.

*Honey Levy Act (Nos. 1 and 2) 1962 (Nos. 106 and 107)* imposed a levy on honey produced in Australia and sold (No. 1) or used in the manufacture of other goods (No. 2).

*Honey Levy Collection Act 1962 (No. 108).*

*Income Tax and Social Services Contribution Act 1962 (No. 63); Income Tax and Social Services Contribution Assessment Act 1962 (No. 39); Income Tax and Social Services Contribution Assessment Act (No. 2) 1962 (No. 98).\**

*Income Tax and Social Services Contribution (Provisional Tax) Act 1962 (No. 15); Income Tax and Social Services Contribution (Rebate) Act 1962 (No. 14)* provided for a rebate of five per cent. of the tax otherwise payable by persons other than companies.

*International Wheat Agreement Act 1962 (No. 53)* gave approval to the signature and acceptance by Australia of the International Wheat Agreement adopted at Geneva in March, 1962.

*Loan Act 1962 (No. 19)* authorized the raising and expending of a sum not exceeding £60 million for defence purposes; *Loan Act (No. 2) 1962 (No. 79)* authorized the raising and expending of a sum not exceeding £118,328,000 for defence purposes.

*Loan (Housing) Act 1962 (No. 17)* authorized the raising and expending of a sum not exceeding £7.5 million for the purposes of housing; *Loan (Housing) Act (No. 2) 1962 (No. 70)* authorized the raising and expending of a sum not exceeding £45.9 million for the purposes of housing.

*Loan (International Bank for Reconstruction and Development) Act 1962 (No. 24)* authorized the raising of a loan from the International Bank for Reconstruction and Development in relation to certain works to be carried out by the Snowy Mountains Hydro-electric Authority and for purposes connected therewith.

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\* These Acts amended existing legislation to extend the appropriate repatriation benefits to members of the Australian forces serving in the Republic of Viet Nam where they have been exposed to additional risk beyond that of normal peace-time service.

*Loan (Qantas Empire Airways Limited) Act 1962* (No. 59) approved the agreement between the Commonwealth and the Chase Manhattan Bank for a loan of \$4.6 million for the purchase by Qantas Empire Airways Limited of a Boeing aircraft, spare parts and equipment.

*National Health Act 1962* (No. 82) amended the hospital benefits provisions of the *National Health Act 1953–1961* in a number of ways, including the payment of a single benefit to insured patients in lieu of the former two-stage payment, the increase of pensioner benefits from 12s. a day to 36s. a day, and the provision of benefits of £1 a day for patients in convalescent and rest homes and infirmary sections of benevolent homes and aged persons homes regardless of whether they are insured with a hospital insurance fund. The Act also substituted the Australian Medical Association for the British Medical Association in various sections of the Act.

*Northern Territory (Administration) Act 1962* (No. 77) gave the Legislative Council for the Northern Territory power to define its privileges, immunities and powers other than its legislative powers.

*Patents Act 1962* (No. 84) amended the *Patents Act 1952–1960* by providing that an inventor may require publication of his specifications at any time after three months from the date of lodgment, and that whether asked by the inventor or not the Commissioner of Patents will in any case make the documents open for public inspection not later than eighteen months after lodgment.

*Pay-roll Tax Assessment Act 1962* (No. 41).

*Processed Milk Products Bounty Act 1962* (No. 47) provided for the payment of bounty on the export of goods (other than those covered by the *Dairying Industry Act 1962*) produced wholly or partly from cow's milk.

*Queensland Beef Cattle Roads Agreement Act 1962* (No. 104) approved an agreement between the Commonwealth and the State of Queensland relating to the construction of roads in that State to be used for the transport of beef cattle.

*Rayon Yarn Bounty Act 1962* (No. 50) extended the period of operation of the *Rayon Yarn Bounty Act 1954–1959* and provided for an increased rate of bounty in respect of rayon sold after 2nd May, 1962.

*Re-establishment and Employment Act 1962* (No. 92).\*

*Removal of Prisoners (Territories) Act 1962* (No. 69) amended the *Removal of Prisoners (Territories) Act 1923–1957* to validate the conditional release of prisoners on licence or criminal lunatics in certain circumstances.

*Repatriation Act 1962* (No. 75) amended the *Repatriation Act 1920–1961* to give uniformity to the date of operation of decisions allowing claims for war pension irrespective of whether the decision is allowed in the first instance or on appeal.

*Repatriation Act (No. 2) 1962* (No. 91).\*

*Repatriation (Far East Strategic Reserve) Act 1962* (No. 90).\*

*Repatriation (Special Overseas Service) Act 1962* (No. 89) provided benefits for certain members of the defence forces who have served on special service outside Australia (see also Acts marked\*).

*Sales Tax Act (Nos. 1 to 9) 1962* (Nos. 5 to 13).

*Sales Tax Assessment Act (No. 1) 1962* (No. 40).

*Sales Tax (Exemptions and Classifications) Act 1962* (No. 4).

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\* These Acts amended existing legislation to extend the appropriate repatriation benefits to members of the Australian forces serving in the Republic of Viet Nam where they have been exposed to additional risk beyond that of normal peace-time service.



*Social Services Act* 1962 (No. 1) amended the *Social Services Act* 1947–1961 in respect of conditions of grant of invalid pensions to blind persons and provided for increased rates of unemployment and sickness benefit and for a higher level of permissible income for persons receiving such benefits.

*Social Services Act* (No. 2) 1962 (No. 95).\*

*States Grants Act* 1962 (No. 16); *States Grants (Additional Assistance) Act* 1962 (No. 20); *States Grants (Additional Assistance) Act* (No. 2) 1962 (No. 58); *States Grants (Special Assistance) Act* 1962 (No. 68); *States Grants (Universities) Act* 1962 (No. 51).

*Stevedoring Industry Act* 1962 (No. 66) amended the *Stevedoring Industry Act* 1956–1961 in matters affecting the registration of waterside workers, the varying or setting aside of the suspension of registration, medical boards to determine appeals against the cancellation or suspension of registration on medical grounds, entitlement to long service leave and payments by the Stevedoring Industry Authority on the death of a waterside worker.

*Stevedoring Industry Charge Act* 1962 (No. 18) amended the rate of the stevedoring industry charge to 3s. 4d. per man hour of employment.

*Stevedoring Industry Charge Assessment Act* 1962 (No. 44).

*Sugar Agreement Act* 1962 (No. 29) approved an agreement made between the Commonwealth and Queensland governments to regulate the production and marketing of sugar within the Commonwealth for a period of six years from 1st September, 1961.

*Sulphate of Ammonia Bounty Act* 1962 (No. 30) provided for the payment of a bounty of £2 a ton on domestic sales of sulphate of ammonia fertilizer to operate for three years from 1st April, 1962, with a limit of £225,000 per annum.

*Supply Act* 1962–1963 (No. 56); *Supply (Works and Services) Act* 1962–1963 (No. 57).

*Tariff Board Act* 1962 (No. 21) amended the *Tariff Board Act* 1921–1960 to provide, *inter alia*, for the appointment of special advisory authorities and, on the recommendation of such authorities, the imposition of temporary duties, or the temporary restriction of imports for a period of up to three months.

*Tariff Board Act* (No. 2) 1962 (No. 86) extended to the Tariff Board the authority to recommend quantitative restrictions in cases where the tariff alone would not be an appropriate means of protection.

*Tobacco Charge Assessment Act* 1962 (No. 43).

*War Service Homes Act* 1962 (No. 2) amended the *War Service Homes Act* 1918–1961 by increasing the maximum advance available to borrowers to £3,500.

*War Service Homes Act* (No. 2) 1962 (No. 93).\*

*Western Australia Grant (Beef Cattle Roads) Act* 1962 (No. 83) approved the grant of financial assistance to the State of Western Australia for the construction and improvement of roads to be used for the transport of beef cattle.

*Wheat Industry Stabilization Fund (Disposal) Act* 1962 (No. 80) provided for the disposal, by way of grants to the States, of the moneys standing to the credit of the Wheat Industry Stabilization Fund established by the *Wheat Industry Assistance Act* 1938.

*Wool Industry Act* 1962 (No. 99) created a statutory body, the Australian Wool Board, to bring under a single direction the functions previously performed by the Australian Wool Bureau, the Wool Research Committee, and the Australian Wool Testing Authority.

*Wool Tax Act* (Nos. 1, 1A, 2 and 2A) 1962 (Nos. 26, 100, 27 and 101).

*Wool Tax Assessment Act* 1962 (No. 25); *Wool Tax Assessment Act* (No. 2) 1962 (No. 42).

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\* These Acts amended existing legislation to extend the appropriate repatriation benefits to members of the Australian forces serving in the Republic of Viet Nam where they have been exposed to additional risk beyond that of normal peace-time service.

## § 5. Commonwealth Government Departments

1. **General.**—In Year Book No. 37, a list appears of the Commonwealth Government Departments as they existed at 31st March, 1947. Since that date, there have been significant changes in the organization and functions of the Departments, and this information has, therefore, been revised and brought up to date in the following paragraphs. For each Department, particulars are given of the principal matters dealt with and the Acts administered by the Minister concerned as at the end of 1962.

2. **The Prime Minister's Department.**—(i) *Matters dealt with.* Inter-departmental co-ordination in governmental, administrative and economic affairs; Cabinet; Cabinet and Cabinet Committee Secretariat; ceremonial; functions of State and government hospitality; communications with State governments; Premiers' Conferences and other conferences as called by the Prime Minister; Federal Executive Council; Royal Commissions; Constitutional Instruments; administrative arrangements; Table of Precedence Honours; Australian High Commission in Britain; Commonwealth Office of Education; Commonwealth Grants Commission; Australian Universities Commission; Commonwealth Archives Office; Commonwealth Literary Fund; Historic Memorials Committee; Art Advisory Board; preparation and publication of "Commonwealth of Australia Gazette" and the "Commonwealth of Australia Directory."

(ii) *Acts Administered.* *Australian National University Act 1946–1960; Australian Universities Commission Act 1959; Commonwealth Grants Commission Act 1933–1957; Commonwealth Salaries Act 1907; Education Act 1945–1959; Flags Act 1953–1954; High Commissioner (United Kingdom) Act 1909–1957; Ministers of State Act 1952–1959; National Library Act 1960; Officers' Rights Declaration Act 1928–1959; Parliamentary Allowances Act 1952–1959; Public Accounts Committee Act 1951; Public Service Act 1922–1960; Public Works Committee Act 1913–1960; Re-establishment and Employment Act 1945–1959, Part III. in relation to university and university-type training, and Part XII. to the extent to which it applies or may be applied in relation to the foregoing; Royal Commission Act 1954; Royal Commissions Act 1902–1933; Royal Commission on Espionage Act 1954; Royal Powers Act 1953; Royal Style and Titles Act (Australia) 1947; Royal Style and Titles Act 1953; Science and Industry Endowment Act 1926–1949; Science and Industry Research Act 1949–1959; Special Annuity Acts; States Grants (Universities) Acts; Weights and Measures (National Standards) Act 1960.*

3. **The Department of the Treasury.**—(i) *Matters dealt with.* Matters relating to general financial and economic problems, including the relationships between public finance, the national income, levels of employment, etc.; general Commonwealth-State financial relationships including special grants; external financial and economic relationships including the balance of international payments, etc.; preparation of the annual Budget and Estimates of receipts and expenditure for presentation to Parliament; control of the Public Accounts, collection of revenue and authorization of expenditure; accounting for Commonwealth receipts and expenditure; matters relating to banking, foreign exchange and interest rates; investigation of proposals relating to prices stabilization, transport, communications, government subsidies and financial assistance to primary and secondary industries; war damage to property; financial aspects of social services, repatriation, health, housing, immigration, education and scientific research, war gratuity, legislation, territorial administration and development, soldier land settlement, Commonwealth works budgeting, acquisition of sites and properties, repairs and maintenance programmes, co-ordination of works; management of the Public Debt; raising of Commonwealth Loans; Acts for the National Debt Commission in the redemption of the Public Debt; matters arising under the Financial Agreement between the Commonwealth and the States; conduct of secretariat for the Australian Loan Council; coinage; financial aspects of Defence matters, including questions of pay and conditions of service of the Defence Forces; financial review, budgeting, and accounting matters in respect of Departments in the Defence group; War Gratuity administration, and administration and accounting under Defence Forces Retirement Benefits Act; insurance and actuarial matters.

(ii) *Acts Administered.* *Appropriation Acts; Audit Act 1901–1961; Banking Act 1959; Banking (Transitional Provisions) Act 1959; Canning-Fruit Charge Act 1959; Brigalow Lands Agreement Act 1962; Canning-Fruit Charge (Administration) Act 1959; Census and Statistics Act 1905–1949; Coal Loading Works Agreement (New South*

*Wales) Act 1961; Coinage Act 1909–1947; Commonwealth Aid Roads Act 1959; Commonwealth Banks Act 1959–1962; Commonwealth Debt Conversion Acts 1931; Commonwealth Employees' Compensation Act 1930–1962; Commonwealth Employees' Furlough Act 1943–1959; Commonwealth Inscribed Stock Act 1911–1946; Commonwealth Motor Vehicles (Liability) Act 1959; Debt Conversion Agreement Act 1931; Defence Forces Retirement Benefits Act 1948–1959; Defence Forces Retirement Benefits Act 1959–1962; Defence Forces Retirement Benefits (Pension Increases) Act 1961; Defence Forces Special Retirement Benefits Act 1960; Entertainments Tax Abolition Act 1953; Estate Duty Act 1914–1941; Estate Duty Assessment Act 1914–1962; Estate Duty Convention (United States of America) Act 1953; Financial Agreement Act 1928; Financial Agreement Act 1944; Financial Agreements (Commonwealth Liability) Act 1932; Financial Agreement Validation Act 1929; Funding Arrangements Act 1921; Gift Duty Act 1941–1947; Gift Duty Assessment Act 1941–1957; Gift Duty Convention (United States of America) Act 1953; Gold-Mining Industry Assistance Act 1954–1962; H.M.A.S. Sydney Replacement Fund Act 1948; Housing Loans Guarantees (Australian Capital Territory) Act 1959; Housing Loans Guarantees (Northern Territory) Act 1959; Income Tax Acts; Income Tax Collection Act 1923–1940; Income Tax and Social Services Contribution Acts; Income Tax and Social Services Contributions (Companies) Act 1956; Income Tax and Social Services Contributions (Individuals) Act 1956; Income Tax and Social Services Contributions (Non-Resident Dividends) Act 1959; Income Tax and Social Services Contribution Assessment Act 1936–1961; Income Tax and Social Services Contribution Assessment (Air Navigation Charges) Act 1952; Income Tax (International Agreements) Act 1953–1960; Insurance Act 1932–1960; International Development Association Act 1960; International Finance Corporation Act 1955–1961; International Monetary Agreements Act 1947; International Monetary Agreements Act 1959; International Monetary Agreements Act 1960; Land Tax Abolition Act 1953–1961; Life Insurance Act 1945–1961; Loan Acts; Loan (Australian National Airlines Commission) Act 1959; Loan (Canadian Dollars) Act 1955; Loan Consolidation and Investment Reserve Act 1955; Loan (Emergency Wheat Storage) Act 1955; Loan (Farmers' Debt Adjustment) Act 1935–1950; Loan (Housing) Acts; Loan (International Bank for Reconstruction and Development) Acts; Loan (Qantas Empire Airways Limited) Act 1957; Loan (Qantas Empire Airways Limited) Act 1958; Loan (Qantas Empire Airways Limited) Act 1960–1962; Loans Securities Act (1919–1959); Loan (Short-term Borrowings) Act 1959; Loan (Swiss Francs) Acts; Loan (Temporary Revenue Deficits) Act 1953; Loan (War Service Land Settlement) Acts; Loans Redemption and Conversion Act 1921–1950; National Debt Sinking Fund Act 1923–1959; National Debt Sinking Fund (Special Payment) Act 1951; National Welfare Fund Act 1943–1952; Northern Territory (Lessee's Loans Guarantee) Act 1954–1959; Parliamentary Retiring Allowances Act 1948–1959; Pay-roll Tax Act 1941; Pay-roll Tax Assessment Act 1941–1962; Queensland Grant (Beef Cattle Roads) Act 1962; Railway Agreement (Queensland) Act 1961; Reserve Bank Act 1959; Salaries Adjustment Act 1955; Salaries Adjustment Act 1956; Salaries (Statutory Offices) Adjustment Act 1947; Salaries (Statutory Offices) Adjustment Act 1950; Salaries (Statutory Offices) Adjustment Act 1957; Salaries (Statutory Offices) Adjustment Act 1960; Sales Tax Acts; Sales Tax Assessment Acts; Sales Tax (Exemptions and Classifications) Act 1935–1962; Sales Tax Procedure 1934–1953; Soldier Settlement Loans (Financial Agreement) Act 1935; States Grants Acts; States Grants (Encouragement of Meat Production) Act 1949–1954; States Grants (Special Assistance) Acts; Statistical Bureau (Tasmania) Act 1924; Statistics (Arrangements with States) Act 1956–1958; Stevedoring Industry Charge Act 1947–1962; Stevedoring Industry Charge Assessment Act 1947–1962; Superannuation Act 1922–1959; Superannuation (Pension Increases) Act 1961; Supply Acts; Surplus Revenue Acts; Tasmania Sinking Fund Agreement Act 1928; Taxation Administration Act 1953–1959; Taxation of Loans Act 1923; Tobacco Charge Acts; Tobacco Charges Assessment Act 1955; Trading with the Enemy Act 1939–1957 in relation to the control of enemy property; Transferred Officers' Allowances Act 1948–1956; Transferred Officers' Pensions Act 1934; Treasury Bills Act 1914–1940; Treaty of Peace (Germany) Act 1919–1920, except in relation to regulations concerning Papua and New Guinea (Treaty of Peace) Regulations, Part II; War Damage to Property Act 1948; War Gratuity Act 1945–1947; War Gratuity Appropriation Act 1948; War Pensions Appropriation Acts; War Precautions Act Repeat Act 1920–1955 (sections 18 and 20); War-time (Company) Tax Acts; War-time (Company) Tax Assessment Act 1940–1953; Western Australia Grant (Beef Cattle Roads) Act 1962; Western Australia Grant (Northern Development) Act 1958–1959; Western Australia Grant (Water Supply) Act 1948–1957; Wool Tax Acts; Wool Tax Assessment Act 1936–1961.*

4. The Attorney-General's Department.—(i) *Matters dealt with.* Law and justice; bankruptcy and insolvency; bills of exchange and promissory notes; copyrights, patents of inventions and designs, and trade marks; Courts Martial Appeals Tribunal; Crown Law offices; divorce and matrimonial causes, and, in relation thereto, parental rights, and the custody and guardianship of infants; foreign corporations, and trading financial

corporations formed within the limits of the Commonwealth; investigations of, and prosecutions for, offences against Commonwealth laws; Judiciary and Courts and presidential members of the Conciliation and Arbitration Commission; legal advice to other Departments and instrumentalities of the Commonwealth; legal aid to members and ex-members of the Forces and their dependants; litigation in which the Commonwealth is a party; marriage; Parliamentary drafting and legal drafting (including Bills, Regulations under Commonwealth Acts, Ordinances, Proclamations, Orders and Agreements); recognition throughout the Commonwealth and its Territories of the laws, the Public Acts and records, and the judicial proceedings of the States and the Territories; reporting of proceedings of Commonwealth tribunals; Commonwealth Police Force; service and execution throughout the Commonwealth and its Territories of the process and judgments of the Courts of the States and the Territories.

(ii) *Acts Administered.* *Acts Interpretation Act 1901–1957; Amendments Incorporation Act 1905–1918; Australian Capital Territory Supreme Court Act 1933–1960; Australian Security Intelligence Organization Act 1956; Bankruptcy Act 1924–1960; Bills of Exchange Act 1909–1958; Bounties Procedure Act 1907–1934; Boy Scouts Association Act 1924; Commonwealth Motor Vehicles (Liability) Act 1959; Commonwealth Police Act 1957; Conciliation and Arbitration Act 1904–1961 section 6 (so far as it relates to the appointment of the President and Deputy President of the Commonwealth Conciliation and Arbitration Commission), sections 7 to 11 inclusive, sections 89 to 94 inclusive, sections 98 to 103 inclusive, Part VII. and section 198 (so far as it relates to prescribing the practice and procedure, and fees payable, in proceedings before the Commonwealth Industrial Court or the Commonwealth Court of Conciliation and Arbitration or prescribing matters for the purposes of Part VII. of the Act); Copyright Act 1912–1950; Courts-Martial Appeals Act 1955; Crimes Act 1914–1960; Defence (Transitional Provisions) Act 1946–1951 and Defence Transition (Residual Provisions) Act 1952 in relation to the following Regulations—National Security (Industrial Property) Regulations, National Security (Supplementary) Regulations—62 and 100; Designs Act 1906–1950; Evidence Act 1905–1956; Extradition Act 1903–1950; Geneva Conventions Act 1957 except to the extent to which it is administered by the Minister for Defence; High Court Procedure Act 1903–1950; Interim Forces Benefits Act 1947–1950, section 8; Judges' Pensions Act 1948–1961; Judiciary Act 1903–1960; Judiciary (Diplomatic Representation) Act 1942; Jury Exemption Act 1905–1950; Marine Insurance Act 1909; Marriage Act 1961; Marriage (Overseas) Act 1955–1958; Matrimonial Causes Act 1959; Northern Territory Supreme Court Act 1961; Parliamentary Papers Act 1908–1946; Patents Act 1952–1960; Patents, Trade Marks, Designs and Copyright Act 1939–1953; Re-establishment and Employment Act 1945–1959, Part IX., Division I of Part XI., insofar as it extends Part IX., and Part XII. to the extent to which it applies or may be applied in relation to the foregoing; Rules Publication Act 1903–1939; Service and Execution of Process Act 1901–1958; Social Services Legislation Declaratory Act 1947; Solicitor-General Act 1916; State and Territorial Laws and Records Recognition Act 1901–1950; Statute of Westminster Adoption Act 1942; Statute Law Revision Act 1934–1950; Statute Law Revision Act 1950; Statutory Declarations Act 1959; Telephonic Communications (Interception) Act 1960; Trade Marks Act 1955–1958; War Precautions Act Repeal Act 1920–1955 in relation to paragraph (e) of section 22.*

5. *The Department of External Affairs.*—(i) *Matters dealt with.* Foreign affairs and relations with overseas governments, including Commonwealth relations; responsibility for the protection of Australian interests and Australian citizens abroad, and for the dissemination of information and intelligence on international affairs; responsibility for Australian Embassies, Legations, High Commissions, Consulates, and other permanent missions abroad, excepting the Australian High Commission in London and, within Australia, for foreign diplomatic missions and consulates and for the representatives of other members of the Commonwealth; publication of the Diplomatic and Consular lists; channel for all communications between Australia and overseas governments (and between Australia and Commonwealth diplomatic and consular representatives in foreign countries), all subjects between other Departments and diplomatic and similar missions in Australia, and for all matters between other Departments in Australia and Australian Embassies, Legations, High Commissions and Consulates abroad, except the Australian High Commission in London; responsibility for advising on Australian policy on matters that arise in the various principal and subsidiary organs of the United Nations and the Specialized Agencies associated with the United Nations, including, apart from purely political issues, questions of trusteeship, international relief and rehabilitation, and international economic relations; co-ordinating authority and channel for Australian

participation in the work of the United Nations and the Specialized Agencies, entailing co-operation on economic, social, administrative, budgetary and legal matters with several Commonwealth and State Departments and authorities; supervision over Australian participation in all international conferences with a view to ensuring co-ordination in policy and economy in representation; liaison between the United Nations and Australian non-governmental bodies; responsibility for Australian participation in such bodies as the South Pacific Commission and the Economic Commission for Asia and the Far East, the Colombo Plan for Co-operative Economic Development in South and South-East Asia, the Korean Training Scheme and the Special Commonwealth African Assistance Plan, and for the implementation of the Australia-New Zealand Agreement, the Security Treaty between Australia, New Zealand and the United States, and the foreign policy aspects of Australian participation in the South-East Asia Collective Defence Treaty, including (jointly with the Department of Defence) S.E.A.T.O. aid programmes; responsibility for the conduct of Australia's Antarctic policies and for the execution of the Government's policy in the Australian Antarctic Territory and at Macquarie Island; responsibility for general questions of international law, relations with the International Court of Justice, the International Law Commission, negotiation and conclusion of treaties and international agreements, publication of the Australian Treaty Series and maintenance of the Australian Treaty List.

(ii) *Acts Administered.* *Antarctic Treaty Act 1960; Australian Antarctic Territory Acceptance Act 1933; Australian Antarctic Territory Act 1954-1957; Charter of the United Nations Act 1945; Consular Fees Act 1955; Diplomatic Immunities Act 1952-1958; Genocide Convention Act 1949; Heard Island and McDonald Islands Act 1953-1957; Indus Basin Development Fund Agreement Act 1960; International Labour Organization Act 1947; International Organizations (Privileges and Immunities) Act 1948-1960; International Trade Organization Act 1948; Security Treaty (Australia, New Zealand and the United States of America) Act 1952; South-East Asia Collective Defence Treaty Act 1954; Treaty of Peace (Bulgaria) Act 1947; Treaty of Peace (Finland) Act 1947; Treaty of Peace (Hungary) Act 1947; Treaty of Peace (Italy) Act 1947; Treaty of Peace (Japan) Act 1952; Treaty of Peace (Roumania) Act 1947; United Nations Educational, Scientific and Cultural Organization Act 1947; United Nations Food and Agriculture Organization Act 1944.*

6. **The Department of Defence.**—(i) *Matters dealt with.* Defence Policy; Joint Service matters and matters having an inter-departmental defence aspect; financial requirements of defence policy and the allocation of the funds made available; supply aspect of defence policy including the review of production programmes and capacity; important matters of policy or principle affecting the Defence Forces and their requirements, including the strength, organization and disposition of the forces, higher appointments in the Services, their weapons and equipment, and defence research and development.

(ii) *Acts Administered.* *Approved Defence Projects Protection Act 1947; Defence Act 1903-1956, except in relation to the organization and control of Naval, Military and Air Forces; Defence (Special Undertakings) Act 1952; Defence (Visiting Forces) Act 1939-1950; Geneva Conventions Act, 1957, Part IV; Services Trust Funds Act 1947-1950, Parts I., II., III. and VII.*

7. **The Department of the Navy.**—(i) *Matters dealt with.* Naval defence.

(ii) *Acts Administered.* *Cockatoo and Schnapper Islands Act 1949; Cockatoo Island Dockyard Agreement Act 1933; Control of Naval Waters Act 1918; Defence Act 1903-1956, in relation to the organization and control of the Naval Forces; Defence Pay Act 1961, insofar as it applies to the Naval Forces; Interim Forces Benefits Act 1947-1950, section 5 in relation to the Naval Forces; Naval Defence Act 1910-1952; Naval Properties Transfer Act 1925; Services Trust Funds Act 1947-1950, Part IV.; War Precautions Act Repeal Act 1920-1955, section 22 (excluding paragraphs (e) and (f) in relation to the Naval Forces); War Service Estates Act 1942-1943, insofar as it applies to the Naval Forces.*

8. **The Department of the Army.**—(i) *Matters dealt with.* Military Defence.

(ii) *Acts Administered.* *Australian Imperial Force Canteens Funds Act 1920-1950; Defence Act 1903-1956, in relation to the organization and control of the Military Forces; Defence Pay Act 1961, insofar as it applies to the Military Forces; Services Trust Funds Act 1947-1950, Part V.; War Crimes Act 1945; War Precautions Act Repeal Act 1920-1955, section 22 (excluding paragraphs (e) and (f) in relation to the Military Forces); War Service Estates Act 1942-1943, insofar as it applies to the Military Forces.*

9. The Department of Air.—(i) *Matters dealt with.* Air Defence; organization and control of the Air Forces of the Commonwealth.

(ii) *Acts Administered.* *Air Force Act 1923–1956; Air Force (Canteens) Act 1957; Defence Act 1903–1956*, in relation to the organization and control of the Air Force; *Defence Pay Act 1961*, insofar as it applies to the Air Force; *Royal Australian Air Force Veterans Residences Act 1953; Services Trust Funds Act 1947–1950, Part VI.; War Service Estates Act 1942–1943*, insofar as it applies to the Air Force.

10. The Department of Customs and Excise.—(i) *Matters dealt with.* Analysis of goods; administration of Bounty Acts; administration of customs and excise by-laws, censorship of cinematograph and television films and literature; collection of customs and excise revenues; contraband control in time of war; customs tariff legislation and administration; administration of diesel fuel tax; control of distillation of spirits; drawbacks of duty; administration of legislation relating to dumping and unfair competition; excise tariff legislation and administration; export control, monetary and commodity; co-operation with the Department of Immigration concerning immigration; import prohibitions and restrictions, including the issue of import licences; international co-operation for standardizing and simplifying customs procedures—Customs Co-operations Council, Economic Commission for Asia and the Far East, Intergovernmental Maritime Consultative Organization and International Civil Aviation Organization; marking and labelling of imported goods; administration of Acts relating to monopolies and combines; control of narcotic drugs under international drug conventions; co-operation with the Department of Health concerning quarantine; registration of British ships; treatment of merchant shipping in port in time of war; prevention of smuggling; statistical classification of, and collection of statistics relating to, imports and exports; analysis of therapeutic substances in co-operation with the Department of Health; trading with the enemy administration; valuation of goods for duty purposes.

(ii) *Acts Administered.* *Australian Industries Preservation Act 1906–1950; Beer Excise Act 1901–1958; Cellulose Acetate Flake Bounty Act 1956–1961; Coal Excise Act 1949–1961; Commerce (Trade Descriptions) Act 1905–1950*, insofar as it relates to imports; *Copper Bounty Act 1958–1960; Cotton Bounty Act 1951–1958; Customs Act 1901–1960; Customs Tariff 1933–1961; Customs Tariff (Canada Preference) 1960–1961; Customs Tariff (Dumping and Subsidies) Act 1961; Customs Tariff (Federation of Rhodesia and Nyasaland Preference) 1960–1961; Customs Tariff (New Zealand Preference) 1933–1961; Customs Tariff (Papua and New Guinea Preference) 1936–1959; Customs Tariff (Primage Duties) 1934–1958; Customs Tariff Validation Acts; Diesel Fuel Tax Act (No. 1) 1957; Diesel Fuel Tax Act (No. 2) 1957; Diesel Fuel Taxation (Administration) Act 1957; Distillation Act 1901–1956; Excise Act 1901–1958; Excise Tariff Act 1921–1961; Excise Tariff Validation Acts; Merchant Shipping Acts (United Kingdom) insofar as they relate to the registration of British ships; *New Zealand Re-exports Act 1924–1947; Pyrites Bounty Act 1960; Rayon Yarn Bounty Act 1954–1959; Sulphate of Ammonia Bounty Act 1962; Spirits Act 1906–1952; Sulphuric Acid Bounty Act 1954–1960; Tariff Board Act 1921–1960*, section 16 and section 16A when appropriate; *Tractor Bounty Act 1939–1960; Trading with the Enemy Act 1939–1957*, except insofar as it relates to the control of enemy property.*

11. The Department of Trade.—(i) *Matters dealt with.* Matters arising out of the international trade policies of Australia and other countries, particular aspects covered including the General Agreement on Tariffs and Trade, quantitative restrictions, subsidies, restrictive business and customs practices, exchange arrangements, export incentives and overseas shipping policy; negotiation and administration of trade agreements and treaties; problems relating to the commodity policies of other countries which affect Australia's international trade, such as surplus disposals, stockpiling, barter arrangements and subsidies; assistance to Australian exporters and manufacturers to find markets abroad, and publicizing Australian goods in overseas markets by means of trade missions, exhibitions, publications, films and press articles; administration of the Trade Commissioner Service which is responsible for investigating market prospects for specific commodities and finding new trade outlets for Australian manufactured products; encouragement of efficiency in industry, assistance in the establishment of new industries, and promotion of overseas investment in Australian industry; conduct of surveys, reviews and studies of manufacturing industries; control of the export of scrap iron and steel; assistance of Australian industry to meet import competition by way of protective duties and bounties; analysis of import statistics and estimation of levels of future imports; analysis of requests for temporary protection.

(ii) *Acts Administered.* *Customs Tariff (New Zealand Preference Agreement) Act 1933–1962; Export Payments Insurance Corporation Act 1956–1961; International Wheat Agreement Act 1959; Secret Commissions Act 1905; Tariff Board Act 1921–1962*, except to the extent to which that Act is administered by the Minister for Customs and Excise; *Trade Agreement (Belgium) Act 1936; Trade Agreement (Brazil) Act 1939; Trade Agreement (Czechoslovakia) Act 1936; Trade Agreement (France) Act 1936; Trade Agreement (Greece) Act 1940; Trade Agreement (South Africa) Act 1936; Trade Agreement (Southern Rhodesia) Act 1941; Trade Agreement (Switzerland) Act 1938; Trade Commissioners Act 1933–1936; United Kingdom and Australia Trade Agreement Act 1932.*

12. **The Department of Primary Industry.**—(i) *Matters dealt with.* Administration of Commonwealth agricultural policy; agricultural economics; assistance to primary producers; Australian Agricultural Council and Standing Committee on Agriculture; collection and dissemination of commercial intelligence and general information; contact with State Departments of Agriculture regarding agricultural production; contact with the following organizations and administration of any Commonwealth Acts under which they are established—Australian Apple and Pear Board, Australian Canned Fruits Board, Australian Dairy Produce Board, Australian Dried Fruits Control Board, Australian Egg Board, Australian Meat Board, Australian Wheat Board, Australian Wine Board, Australian Wine Research Institute, Australian Wool Bureau, Australian Wool Testing Authority, Central Tobacco Advisory Committee, Export Sugar Committee, Federal Potato Advisory Committee, Fruit Industry Sugar Concession Committee; Fisheries, Pearling and Whaling—administration of Commonwealth policy, control of fishing in extra-territorial waters, Fisheries Development Trust Account; inspection and/or grading of dairy produce, fish, flour, fruit (fresh, dried and canned), jams, honey, meat, vegetables, etc., submitted for export from the Commonwealth; investigation of economic, marketing, and other problems of primary industries; jute supplies; marketing of primary produce; research—cattle and beef, dairy produce, tobacco, wheat, wine, wool; rural credits; stabilization of primary industries; supervision of labelling and packing of controlled commodities for export; War Service Land Settlement—agricultural loans and allowances, financial assistance to States for war service land settlement and rural training of ex-service personnel.

(ii) *Acts Administered.* *Apple and Pear Export Charges Act 1938–1960; Apple and Pear Organization Act 1938–1960; Australian Wool Testing Authority Act 1957; Canned Fruits Export Charges Act 1926–1952; Canned Fruits Export Control Act 1926–1959; Canned Fruit (Sales Promotion) Act 1959; Cattle and Beef Research Act 1960–1961; Cattle Slaughter Levy Act 1960; Cattle Slaughter Levy Collection Act 1960–1961; Cattle Slaughter Levy (Suspension) Act 1961; Commerce (Trade Descriptions) Act 1905–1950; Dairying Industry Act 1962; Dairy Produce Export Charge Act 1962; Dairy Produce Export Control Act 1924–1962; Dairy Produce Levy Act 1958; Dairy Produce Research and Sales Promotion Act 1958; Dried Fruits Export Charges Act 1924–1929; Dried Fruits Export Control Act 1924–1953; Egg Export Charges Act 1947; Egg Export Control Act 1947–1954; Egg Export Control Act 1950; Fisheries Act 1952–1959; Fishing Industry Act 1956; Flax Industry Act Repeal Act 1960; Hide and Leather Industries Legislation Repeal Act 1955; Meat Agreement (Deficiency Payments) Act 1955–1956; Meat Export (Additional Charge) Act 1956; Meat Export Charges Act 1935–1954; Meat Export Control Act 1935–1960; Meat Industry Control Act 1946–1950; Pearl Fisheries Act 1952–1953; Primary Produce Export Charges Repeal Act 1948; Processed Milk Products Bounty Act 1962; Queensland Meat Inspection Agreement Act 1932; Re-establishment and Employment Act 1945–1959, Part III., in relation to rural training; Divisions 3 and 4, Part VI., in relation to agricultural occupations; Division 1 of Part XI., insofar as it extends the foregoing, and Part XII. to the extent to which it applies or may be applied in relation to the foregoing; States Grants (War Service Land Settlement) Act 1952–1953; Sugar Agreement Act 1962; Tobacco Industry Act 1955; War Service Land Settlement Agreements Act 1945; Whaling Act 1935–1948; Whaling Act 1960; Whaling Industry Act Repeal Act 1956; Wheat Acquisition (Undistributed Moneys) Act 1958; Wheat Bounty Act 1951; Wheat Export Charge Act 1958; Wheat Industry Stabilization Act 1958–1960; Wheat Industry Stabilization Act 1960; Wheat Industry Stabilization (Refund of Charge) Acts; Wheat Research Act 1957; Wheat Subsidy Act 1944; Wheat Tax Act 1957; Wheat Tax (Repeal and Refund) Act 1948; Wine Grapes Charges Act 1929–1957; Wine Overseas Marketing Act 1929–1961; Wine Research Act 1955; Wire and Wire Netting Act 1927–1932; Wool Realization Act 1945–1952; Wool Realization (Distribution of Profits) Act 1948–1957; Wool Research Act 1957–1960; Wool (Reserve Prices) Fund Act 1950; Wool Stores Act 1953; Wool Use Promotion Act 1953–1960.*

13. **The Postmaster-General's Department.**—(i) *Matters dealt with.* Provision of facilities for collection and transmission of inland and overseas mails; provision and operation of telegraphic and telephonic communication services; provision of facilities for remittance of money; provision and operation of the technical services of the National Broadcasting Service (sound); provision and operation of the transmitting stations of the National Television Service; general supervision and licensing of all civil radio-communication stations in the Commonwealth and its Territories.

(ii) *Acts Administered.* *Broadcasting and Television Act 1942–1962; Broadcasting and Television Stations Licence Fees Act 1956; Oversea Telecommunications Act 1946–1958; Parliamentary Proceedings Broadcasting Act 1946–1960; Post and Telegraph Act 1901–1961; Post and Telegraph Rates Act 1902–1959; Wireless Telegraphy Act 1905–1950.*

14. **The Department of the Interior.**—(i) *Matters dealt with.* Accommodation of Commonwealth Departments; developmental planning and administration of the Australian Capital Territory, with the exception of health and justice; Australian Official War History 1939–1945; Australian War Memorial; civil defence; conveyance of Members of Parliament and others; elections and franchise; Australian Capital Territory electricity supply; forestry and timber; ionospheric prediction service; acquisition and leasing of land for Commonwealth purposes; meteorology; national memorials; Australian Capital Territory police; management of Commonwealth property; publicity; news and information; Australian Capital Territory soil erosion; land, engineering and topographical surveys; war graves.

(ii) *Acts Administered.* *Australian Capital Territory Representation Act 1948–1959; Australian War Memorial Act 1925–1952; Commonwealth Electoral Act 1918–1961; Defence (Transitional Provisions) Act 1946–1951; and Defence Transition (Residual) Provisions Act 1952, insofar as it relates to National Security (General) Regulations 54, 55AA, 55A, 60B, 60G and 60I–60M; Darwin Lands Acquisition Act 1945; Forestry and Timber Bureau Act 1930–1953; Jervis Bay Territory Acceptance Act 1915–1955; Lands Acquisition Act 1955–1957, except in relation to the Northern Territory; Meteorology Act 1955; Mount Stromlo Observatory Act 1956; National Capital Development Commission Act 1957–1960; Referendum (Constitution Alteration) Act 1906–1936; Representation Act 1905–1938; Representation Act 1948–1949; Seat of Government Acceptance Act 1909–1955; Seat of Government Acceptance Act 1922; Seat of Government Act 1908–1955; Seat of Government (Administration) Act 1910–1959; Seat of Government (Administration) Act 1930–1955; Senate Elections Act 1903–1948.*

15. **The Department of Labour and National Service.**—(i) *Matters dealt with.* Operation of the Commonwealth Employment Service, including—the provision of facilities for people seeking employment or to engage labour, the placement of migrants, the re-establishment in employment of ex-service personnel, employment aspects of Commonwealth schemes for the rehabilitation of the physically handicapped; as agent for the Department of Social Services, the receipt of claims for unemployment and sickness benefit; preference to ex-service personnel; analysis, interpretation, and provision of information on the labour market and changes in employment; registers of scientific personnel; formulation of industrial relations policy; conciliation and arbitration in relation to industrial disputes with special responsibilities for the coal, stevedoring and maritime industries; provision of a channel of communication between the government and industrial organizations of employers and workers; co-ordination of industrial matters affecting Commonwealth departments and agencies; advice and information on awards and industrial matters, industrial intelligence service, and production of Industrial Information Bulletin; Commonwealth Arbitration Inspectorate; international labour relations with special responsibilities in relation to the International Labour Organization; vocational and pre-vocational training for ex-service personnel, members of the Forces, the physically handicapped and for other Commonwealth purposes; assisting in the development and introduction of industry training; promotion of productivity groups in industry and commerce; investigation into, and the provision of advice and information on physical working conditions in industry, personnel practice, and industrial food services; inspection of departmental food services and the operation of food services for the Australian Stevedoring Industry Authority and other Commonwealth agencies; Commonwealth Hostels policy issues; liaison with State Labour Departments generally and through the Departments of Labour Advisory Committee; apprenticeship including liaison with State Apprenticeship and Technical Education Authorities through the Australian Apprenticeship Advisory Committee; Secretariat for the Ministry of Labour Advisory Council.



(ii) *Acts Administered.* *Coal Industry Act 1946–1958, Part V.; Coal Industry Act 1951–1956; Coal Industry Act 1955; Coal Industry (Tasmania) Act 1949, Part V.; Conciliation and Arbitration Act 1904–1961, except to the extent to which that Act is administered by the Attorney-General; National Service Act 1951–1957; National Service (Discharge of Trainees) Act 1960; Public Service Arbitration Act 1920–1960; Re-establishment and Employment Act 1945–1959, Divisions 1, 2, 3 (excluding section 43 and section 44 in relation to section 43) and 5 of Part II., Part III. in relation to industrial and professional training (other than university, university-type and rural training), Division 1 of Part XI., insofar as it extends the foregoing, Division 2 of Part XI., and Part XII. to the extent to which it applies or may be applied in relation to the foregoing; States Grants (Coal Mining Industry Long Service Leave) Act 1949–1961; Stevedoring Industry Act 1954–1956; Stevedoring Industry Act 1956–1961; Tradesmen's Rights Regulation Act 1946–1958.*

16. **The Department of Shipping and Transport.**—(i) *Matters dealt with.* Control and maintenance of coastal lights and other aids to navigation on the ocean highways of the Australian coastline; control of navigation services such as seamen's compensation, prevention of obstructions on shipping routes and fishing grounds, manning of ships, accommodation for ships' crews, welfare of seamen, maintenance of ships' gear, examination of masters, officers and engineers; Courts of Marine Inquiry; prevention of pollution of the sea by oil; shipping, including the licensing of vessels engaging in the Australian coasting trade; chartering of ships for defence purposes; shipbuilding, covering the provision of expert advice, design and purchasing facilities, supervision over construction, and other administrative and technical services; stowage and movement of explosives and dangerous cargoes at Australian ports; operation of the Point Wilson Explosives Jetty, Victoria; administration of Standardization of Railways Agreements and the Railways Equipment Agreement (South Australia); administration of Commonwealth assistance to States for road construction, roads of access to Commonwealth properties; Australian Transport Advisory Council and its ancillary committees—the Australian Road Traffic Code Committee, the Australian Motor Vehicle Standards Committee, the Australian Road Safety Council.

(ii) *Acts Administered.* *Australian Coastal Shipping Agreement Act 1956; Australian Coastal Shipping Commission Act 1956; Beaches, Fishing Grounds, and Sea Routes Protection Act 1932–1961 (except section 3); Brachina to Leigh Creek North Coalfield Railway Act 1950–1952; Colonial Light Dues Legislation Repeal Act 1960; Commonwealth Aid Roads Act 1954–1956; Commonwealth Aid Roads Act 1959; Commonwealth Railways Act 1917–1960; Explosives Act 1952–1961; Grafton to South Brisbane Railway Act 1924–1930; Kalgoorlie to Port Augusta Railway Act 1911–1950; Leigh Creek North Coalfield to Marree (Conversion to Standard Gauge) Railway Act 1954; Lighthouses Act 1911–1961; Navigation Act 1912–1961; Northern Territory Railway Extension Act 1923–1950; Oodnadatta to Alice Springs Railway Act 1926–1950; Pollution of the Sea by Oil Act 1960; Pine Creek to Katherine River Railway Act 1913–1950; Port Augusta to Alice Springs Railway (Alteration of Route) Act 1950; Port Augusta to Port Pirie Railway Act 1935–1950; Railway Agreement (Western Australia) Act 1961; Railway Equipment Agreement (South Australia) Act 1961; Railway Standardization (New South Wales and Victoria) Agreement Act 1958; Railway Standardization (South Australia) Agreement Act 1949; Railways (South Australia) Agreement Act 1926; Sea-carriage of Goods Act 1924; Seamen's Compensation Act 1911–1960; Seamen's War Pensions and Allowances Act 1940–1961 (except Part III. and Parts I., II., and VI. to the extent to which they apply to Part III.); Seat of Government Railway Act 1928; Stirling North to Brachina Railway Act 1952–1954; Supply and Development Act 1939–1948, insofar as it concerns the building, repair and maintenance of merchant ships and the building, extension, alteration, repair and maintenance of shipyard drydocking, and repair facilities for merchant ships.*

17. **The Department of Works.**—(i) *Matters dealt with.* Design, estimate of cost, supervision and execution of all architectural and engineering works (both capital and maintenance) for the Commonwealth Government and such other works as may be requested by a State, or an authority of the Commonwealth or of a State; inspection of all works and advice to the Department concerned as to necessary maintenance and the estimated cost of such maintenance; the formulation of proposals for the co-ordination of works projects independently initiated by two or more Departments; formulation of town planning proposals in areas controlled by the Commonwealth in collaboration with other responsible

Departments; technical advice in relation to Commonwealth Works programmes; investigation, planning, and development of such works of national importance as are referred to the Department by the Commonwealth Government; technical advice to the Commonwealth in relation to works of a State, or of an authority of a State in which the Commonwealth has a direct financial interest, and, if so directed by the Commonwealth Government, the design or execution of those works; collaboration with Commonwealth and State Departments and authorities and local authorities on regional and town planning insofar as it affects Commonwealth works; the submission to the Defence Services of works proposals or works plans (other than Defence Works) for which the Commonwealth is wholly or partially responsible, and which the Department considers may have strategic significance; collaboration in research carried out by the Commonwealth and State Departments or authorities in relation to works and the circulation of relevant data to interested Departments or authorities; planning and conduct of such further research as the Department considers necessary in relation to matters affecting the planning, design and execution of works.

(ii) *Acts Administered.* Nil.

18. **The Department of Civil Aviation.**—(i) *Matters dealt with.* Ensuring the safety and promoting the development of civil aviation, implementation of standards and recommended practices adopted in pursuance of the Chicago convention; exercise of the powers and functions vested in "Commonwealth Authorities" by virtue of the uniform State Air Navigation Acts; negotiation and administration of agreements with airline operators concerning the operation of air services, carriage of mail and other matters; negotiation and administration of international air transport agreements and the regulation of international flights and air services; assisting in the formulation of policy relating to airlines which are authorities of the Commonwealth or in which the Commonwealth is a shareholder, administration of financial arrangements in relation to airlines and rationalization of aircraft fleets; registration and marking of aircraft, determining airworthiness requirements for aircraft and the issue of Certificates of Airworthiness, Certificates of Type Approval and supervision of aircraft design; licensing of pilots, navigators, radio operators, flight engineers, and aircraft maintenance engineers and technicians and supervision of the work of licensed personnel; issue of approvals for export of aircraft and of permits for import of aircraft, licensing of flying schools and training organizations and supervision of their activities; provision, operation and maintenance of aeronautical communications system for communication between aircraft and the ground and between ground stations; determining requirements as to maintenance and contents of Logs and Log Books; provision, operation and maintenance of air navigation facilities, functional design, operation, and maintenance of aerodromes and related facilities and arranging for their provision in collaboration with other responsible Departments; control of buildings and marking of obstructions likely to endanger air navigation in the vicinity of aerodromes; development of business concessions at airports; licensing and authorization of places for use as aerodromes; establishment and operation of an air traffic control service for the purpose of preventing collisions, and controlling the movement of aircraft so as to ensure an orderly flow of air traffic and the safety of aircraft operations; specifying the meteorological services necessary for promoting the safe, economic and regular operations of aircraft, and making arrangements for their provision with other Departments; arranging for the establishment and operation of a search and rescue service; establishment and conduct of an aeronautical information service; approval of fares and freight rates and time-tables for airline operations; determining the Rules of the Air and general conditions of flight over Australian territory; licensing of air service operations and liaison with State transport licensing authorities as appropriate; suspension and cancellation of licences and certificates and constitution of boards of review; investigation of aircraft accidents, incidents and defects; enforcement of safety regulations and institution of summary prosecutions; imposition, variation and collection of charges in respect of the use by aircraft of aerodromes, air route and air way facilities, meteorological services and search and rescue services; control of surface traffic in airports; examination and analysis of costs, revenue and other financial aspects of air transport and other forms of civil aviation and preparation of statistics relating thereto; liaison with international civil aviation organizations and representation thereon; participation in the development of international conventions regulating the economic and legal aspects of air navigation.

(ii) *Acts administered.* *Airlines Agreements Act 1952–1961; Airlines Equipment Act 1958; Air Navigation Act 1920–1961; Air Navigation (Charges) Act 1952–1960; Airports (Business Concessions) Act 1959; Airports (Surface Traffic) Act 1960; Australian National Airlines Act 1945–1961; British Commonwealth Pacific Airlines Agreement Act 1947; Civil Aviation Agreement Act 1952–1957; Civil Aviation Agreement Act 1957; Civil Aviation (Carriers' Liability) Act 1959–1962; Civil Aviation (Damage by Aircraft) Act 1958.*

19. **The Department of Social Services.**—(i) *Matters dealt with.* Age, invalid and widows' pensions; wives' and children's allowances; supplementary assistance for age, invalid and widow pensioners; funeral benefits for age pensioners; maternity allowances and child endowment; unemployment, sickness and special benefits; the Commonwealth Rehabilitation Service; Reciprocal Agreements on Social Security with Great Britain and with New Zealand; compassionate allowances on a discretionary basis for persons in necessitous circumstances who are unable to qualify for pensions and benefits under the Social Services Act. On behalf of other Departments—the assessment and payment of tuberculosis allowances; the payment of war and service pensions, Commonwealth superannuation, Commonwealth Literary Fund Allowances and Act of Grace payments; pensions and allowances on behalf of oversea Governments; the issue of entitlement cards for the Pensioner Medical Service and certification of medical eligibility for sales tax exemption on the purchase of vehicles and parts by certain classes of disabled civilians; grants to eligible charitable organizations towards the capital cost of homes for the aged, and grants to State government and voluntary agencies to encourage emergency house-keeper services.

(ii) *Acts Administered.* *Social Services Act 1947–1962*; *Aged Persons Homes Act 1954–1957*; *Defence (Transitional Provisions) Act 1946* (Section 13); certain parts of *Re-establishment of Employment Act*.

20. **The Repatriation Department.**—(i) *Matters dealt with.* General administration of *Repatriation Act* and associated legislation which provide pensions, allowances, medical care and other benefits for entitled ex-servicemen, and dependants, of the 1914–18 War, the 1939–45 War, the Korea and Malaya Operations, service with the Australian component of the British Commonwealth Strategic Reserve, for merchant seamen of the 1939–45 War and for native members of the Forces in the Torres Strait Islands; investigation and determination of claims for acceptance of disabilities as due to war service; administration of war pensions, allowances, service pensions and miscellaneous forms of assistance; administration of education and training schemes and associated benefits, namely the Soldiers' Children Education Scheme, the Korea-Malaya Training Scheme and the Disabled Members' and Widows' Training Scheme; provision of medical and dental care for entitled ex-servicemen and eligible dependants of deceased ex-servicemen, including the Local Medical Officer scheme, in-patient and out-patient treatment, the supply of artificial limbs, surgical aids and appliances; administration of Repatriation general hospitals, sanatoria, auxiliary hospitals, out-patient clinics and artificial limb and appliance centres; provision of medical treatment for serving members of the Forces by agreement with the Service Departments; payment of pensions and provision of medical treatment for ex-servicemen of other British Commonwealth countries living in Australia, by agreement with the governments of the countries concerned; administrative arrangements for War Pensions Entitlement Appeal Tribunals and Assessment Tribunals which are independent bodies responsible to the Minister.

(ii) *Acts Administered.* *Repatriation Act 1920–1961*; *Repatriation (Far East Strategic Reserve) Act 1956*; *Repatriation Fund (Baillieu Gift) Act 1937*; *Interim Forces Benefits Act 1947–1950*; *Re-establishment and Employment Act 1945–1959* (in part); *Seamen's War Pensions Allowances Act 1940–1961* (in part); *Native Members of the Forces Benefits Act 1957* (in part).

21. **The Department of Immigration.**—(i) *Matters dealt with.* The administration of all aspects of immigration policy; the planning and development of immigration programmes; the negotiation and administration of bilateral assisted passage agreements and also unilateral assisted migration schemes; formulation of immigration policy in its relation to international organizations (Intergovernmental Committee for European Migration, United Nations High Commissioner for Refugees); all applications to enter Australia for permanent residence and for temporary stay (e.g. business and tourist visitors, students and other visitors); the conduct of surveys on the economic and sociological effects of immigration; Australian citizenship and British nationality; passports and travel documentation generally; emigration policy and legislation; aliens control (registration and policy); the social integration of migrants, including the provision of facilities for non-British migrants to learn English; the encouragement of community participation in integration activities through the Good Neighbour movement; the Australian Citizenship Convention; the operation of migrant reception and accommodation centres; prosecutions in respect of infringements of the *Migration Act 1958* and the *Aliens Act 1959*; implementation of the deportation provisions of the *Migration Act 1958*; control of immigration agents; administration of the Templar Trust Fund.

(ii) *Acts Administered.* *Aliens Act 1947–1959; Immigration (Guardianship of Children) Act 1946–1952; Migration Act 1958; Nationality and Citizenship Act 1948–1960; Nationality and Citizenship (Burmese) Act 1950; Passports Act 1938–1948; Temple Society Trust Fund Act 1949; War-time Refugees Removal Act 1949.*

22. **The Department of Health.**—(i) *Matters dealt with.* Maintenance of quarantine stations and quarantine surveillance of persons, animals, plants, and goods; the provision of hospital, medical and pharmaceutical benefits; the pensioner medical services; tuberculosis allowances and the payment of grants for free milk for school children, mental institutions, home nursing, and other subsidies; the control and maintenance of health laboratories, the National Biological Standards Laboratory, the Commonwealth Acoustic Laboratories, the Commonwealth X-ray and Radium Laboratory, the Commonwealth Bureau of Dental Standards, and the Australian Institute of Anatomy; administration of the *Therapeutic Substances Act*; maintenance of the School of Public Health and Tropical Medicine, including a Division of Industrial Hygiene, and the Australian Institute of Child Health, Sydney University; maintenance of a migration health service at migrant holding centres in Australia and strategic migration centres overseas; the conduct of health administration and health services in the Northern Territory and the Australian Capital Territory; co-operation with State administrations in planning and taking measures to improve public health, including the anti-tuberculosis campaign, anti-poliomyelitis campaign, national fitness, etc.; National Health and Medical Research Council; World Health Organization and international hygiene matters affecting the Commonwealth; the conduct of medical examinations under the Navigation, Social Services, Public Service and Superannuation Acts; the supervision of radio and television advertising and talks on medical matters; defence—the Central Medical Planning Committee.

(ii) *Acts Administered.* *Acoustic Laboratories Act 1948; Australian Institute of Anatomy Agreement Act 1924–1933; Australian Institute of Anatomy Agreement Act 1931; Beaches, Fishing Grounds and Sea Routes Protection Act 1932, section 3; Foot and Mouth Disease Act 1961; Home Nursing Subsidy Act 1956; Medical Research Endowment Act 1937; National Fitness Act 1941; National Health Act 1953–1961; Quarantine Act 1908–1961; States Grants (Mental Institutions) Act 1955; States Grants (Milk for School Children) Act 1950; Therapeutic Substances Act 1953–1959; Tuberculosis Act 1948; World Health Organization Act 1947.*

23. **The Department of Territories.**—(i) *Matters dealt with.* Administration of all aspects of government in the Territories of Norfolk Island, Papua and New Guinea, Nauru, Cocos (Keeling) Islands and Christmas Island, except defence and civil aviation; administration of all aspects of territorial government in the Northern Territory and of the Territory of Ashmore and Cartier Islands; development of the Territories; recruitment of staff for territorial public services and other territorial organizations; administration of territorial superannuation schemes and the New Guinea Civilian War Pension Scheme; procurement and shipment of stores and supplies for territorial administrations; matters connected with the Australian School of Pacific Administration, the Papua and New Guinea Copra Marketing Board, the British Phosphate Commissioners, the Christmas Island Phosphate Commission, and expropriated properties in Papua and New Guinea; matters relating to United Nations Trusteeship Agreements for New Guinea and Nauru; United Nations and South Pacific Commission and other international matters relating to the Territories of Norfolk Island, Papua and New Guinea and Nauru.

(ii) *Acts Administered.* *Ashmore and Cartier Islands Acceptance Act 1933–1938; Christmas Island Act 1958–1959; Christmas Island Agreement Act 1958; Christmas Island (Request and Consent) Act 1957; Cocos (Keeling) Islands (Request and Consent) Act 1954; Cocos (Keeling) Islands Act 1955–1958; Lands Acquisition Act 1955–1957, in relation to the Northern Territory; Native Members of the Forces Benefits Act 1957, in relation to native members of the forces who are or were aboriginal natives of the Territory of Papua or the Territory of New Guinea or of an island in the Pacific Ocean and their dependants; Nauru Island Agreement Act 1919; Nauru Island Agreement Act 1932; New Guinea Timber Agreement Act 1952–1953; Norfolk Island Act 1957; Norfolk Island Ordinances Act 1957; Northern Territory Acceptance Act 1910–1952; Northern Territory Administration Act 1910–1961; Northern Territory Representation Act 1922–1959; Papua and New Guinea Act 1949–1960; Papua and New Guinea (Validation of Appointments) Act 1953; Removal of Prisoners (Territories) Act 1923–1957; Treaty of Peace (Germany) Act 1919–1920, in relation to regulations concerning Papua and New Guinea (Treaty of Peace) Regulations, Part II.*

**24. The Department of Supply.**—(i) *Matters dealt with.* Defence research and development, including the operation of the Joint United Kingdom–Australia Long Range Weapons Project, and Australian research and development through the Weapons Research Establishment, the Aeronautical Research Laboratories, the Defence Standards Laboratories and associated establishments; manufacture, acquisition, provision and supply of munitions (including aircraft) and miscellaneous goods and services required by the defence forces; arrangement of contracts for the supply of goods and the performance of services; operation and management of factories, workshops and undertakings concerned in the production of munitions (including aircraft), clothing, canvas ware and other defence goods; operation and management of space tracking stations in Australia on behalf of the United States National Aeronautics and Space Administration; test firing of the launching rocket for the European Launcher Development Organization's communications satellite, using the facilities of the Woomera Rocket Range; acquisition, maintenance and disposal of strategic materials; planning and establishment of manufacturing facilities for the production of munitions and other defence goods; investigation and development of Australian sources of supply in connexion with defence; sale or disposal of surplus Commonwealth property other than land or buildings; provision of Commonwealth transport facilities outside the Australian Capital Territory; provision and control of stores required for or in connexion with matters administered by the Department of Supply, and general storage for other Departments as required; provision of security services within the Department; arrangements for ascertaining costs and control and limitation of profits in connexion with the production of munitions and other defence goods.

(ii) *Acts Administered.* *Supply and Development Act* 1939–1948, except to the extent to which that Act is administered by the Minister for Shipping and Transport.

**25. The Department of National Development.**—(i) *Matters dealt with.* Development of natural resources and public utilities; development of mining and non-ferrous metallurgical industries; geological and geophysical surveys and investigations; geographical and resources mapping; liquid and solid fuel industries; building industry; housing, including housing agreements between Commonwealth and States and War Service Homes.

(ii) *Acts Administered.* *Aluminium Industry Act* 1944–1956; *Aluminium Industry Act* 1960; *Atomic Energy Act* 1953–1958; *Coal Industry Act* 1946–1958 (except Part V); *Coal Industry (Tasmania) Act* 1949 (except Part V); *Coal Production (War Time) Act Repeal Act* 1948; *Commonwealth and State Housing Agreement Act* 1945–1955; *Commonwealth and State Housing Agreement Act* 1955; *Housing Agreement Act* 1956; *Housing Agreement Act* 1961; *Liquid Fuel (Defence Stocks) Act* 1949; *National Oil Proprietary Limited Agreement Act* 1937; *National Oil Proprietary Limited Agreement Act* 1939; *Oil Agreement Act* 1952; *Petroleum Search Subsidy Act* 1957–1958; *Petroleum Search Subsidy Act* 1959–1961; *Re-establishment and Employment Act* 1945–1959, Part VIII., Division 1 of Part XI., insofar as it extends to Part VIII., Part XII. to the extent to which it applies or may be applied in relation to the foregoing; *River Murray Waters Act* 1915–1958; *Snowy Mountains Hydro-electric Authority Act* 1960; *Snowy Mountains Hydro-electric Power Act* 1949–1958; *States Grants (Imported Houses) Act* 1950; *War Service Homes Act* 1918–1961; *War Service Homes Agreement Act* 1932; *War Service Homes (South Australia) Agreement Act* 1934; *War Service Homes Act* 1962.

## § 6. Cost of Parliamentary Government

The tables in this section are intended to show, in broad groups, the expenditure incurred in the operation of the Parliamentary system in Australia, comprising the Governor-General and Governors, the Ministries, the Upper and Lower Houses of Parliament, and electoral activities; they do not attempt to cover the expenditure on Commonwealth and State administration generally. Only broad groups are shown, but even these are not entirely comparable because of differences in accounting procedures and in the presentation of accounts. A very large part of the expenditure under the head of Governor-General or Governor represents official services entirely outside the Governor's personal interest, carried out at the request of the Government.

The following statements show this expenditure for the Commonwealth and for each State for the years ended 30th June, 1961 and 1962.

## COST OF PARLIAMENTARY GOVERNMENT

(£ )

Particulars	C'wlth	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
1960-61								
Governor - General or Governor's residences, etc.(a) .. ..	166,208	49,258	68,268	51,957	45,298	37,146	45,399	463,534
Ministry(c) .. ..	181,364	34,850	41,583	29,695	17,050	31,676	32,204	368,422
Parliament—								
Upper House(d) ..	267,992	57,716	104,256	..	56,140	95,486	36,455	618,045
Lower House(d) ..	516,755	348,418	184,538	252,190	10,449	158,296	75,452	1,646,098
Both Houses(e) ..	879,305	297,161	225,177	153,805	135,910	127,051	45,763	1,864,172
Miscellaneous(f) ..	526,183	73,129	40,287	21,622	30,949	8,140	13,673	713,983
<b>Total, Parliament ..</b>	<b>2,190,235</b>	<b>776,424</b>	<b>554,258</b>	<b>427,617</b>	<b>333,448</b>	<b>388,973</b>	<b>171,343</b>	<b>4,842,298</b>
Electoral(g) .. ..	693,851	208,599	59,565	72,374	20,500	40,976	22,698	1,118,563
Royal Commissions, Select Committees, etc. ..	8,522	13,377	24,817	945	1,945	37,725	8,750	96,081
<b>Grand Total ..</b>	<b>3,240,180</b>	<b>1,082,508</b>	<b>748,491</b>	<b>582,588</b>	<b>418,241</b>	<b>536,496</b>	<b>280,394</b>	<b>6,888,898</b>

1961-62

Governor - General or Governor's residences, etc.(a) .. ..	207,682	48,342	83,233	54,983	43,623	48,661	47,062	533,586
Ministry(c) .. ..	245,400	34,850	35,254	27,766	17,050	31,356	27,661	419,337
Parliament—								
Upper House(d) ..	242,745	58,227	104,344	..	55,887	97,964	37,993	597,160
Lower House(d) ..	514,896	351,069	185,895	259,918	110,478	159,239	78,632	1,660,127
Both Houses(e) ..	871,664	349,264	246,936	153,897	150,259	173,100	50,182	1,995,302
Miscellaneous(f) ..	504,972	92,089	38,650	22,473	27,778	8,959	15,524	710,445
<b>Total, Parliament ..</b>	<b>2,134,277</b>	<b>850,649</b>	<b>575,825</b>	<b>436,288</b>	<b>344,402</b>	<b>439,262</b>	<b>182,331</b>	<b>4,963,034</b>
Electoral(g) .. ..	1,110,417	250,073	147,961	56,981	63,844	105,301	26,231	1,760,808
Royal Commissions, Select Committees, etc. ..	10,905	30,624	27,894	..	1,698	5,318	5,777	82,216
<b>Grand Total ..</b>	<b>3,708,681</b>	<b>1,214,538</b>	<b>870,167</b>	<b>576,018</b>	<b>470,617</b>	<b>629,898</b>	<b>289,062</b>	<b>7,758,981</b>

(a) Salaries and other expenses, including maintenance of house and ground. (b) Includes official establishments. 1960-61—£34,657, 1961-62—£39,664. (c) Salaries as ministers, and travelling and other expenses. (d) Allowances to members (including ministers' salary as member), travelling and other expenses. (e) Government contribution to Members' Superannuation Funds, printing, reporting staff, library, etc. (f) Services, furniture, stores, etc. (g) Salaries, cost of elections, etc.

Figures for total cost and cost per head during each of the years 1957-58 to 1961-62 are shown in the next table.

## COST OF PARLIAMENTARY GOVERNMENT

Year	C'wealth	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
TOTAL (£)								
1957-58	2,661,604	783,001	660,805	538,365	331,443	434,256	242,064	5,651,538
1958-59	2,986,399	898,897	725,261	470,289	377,463	450,270	256,856	6,165,435
1959-60	3,181,262	906,100	695,399	599,125	390,741	479,357	279,896	6,531,880
1960-61	3,240,180	1,082,508	748,491	582,588	418,241	536,496	280,394	6,888,898
1961-62	3,708,681	1,214,538	870,167	576,018	470,617	629,898	289,062	7,758,981

PER HEAD OF POPULATION  
(s. d.)

1957-58	5 6	4 3	4 11	7 7	7 6	12 6	14 7	11 7
1958-59	6 0	4 10	5 3	6 6	8 4	12 9	15 2	12 5
1959-60	6 3	4 9	4 11	8 1	8 4	13 4	16 3	12 10
1960-61	6 3	5 7	5 2	7 9	8 9	14 8	16 0	13 3
1961-62	7 0	6 3	5 11	7 7	9 7	16 11	16 3	14 8

## § 7. Government Employees

Information concerning the number of employees of Australian Government Authorities may be found in Chapter XII. Labour, Wages and Prices.

## CHAPTER IV

### LAND TENURE AND SETTLEMENT

#### § 1. Disposal of Crown Lands

**1. Land Legislation and Tenures.**—Descriptions of the land tenure systems of the several States and the internal Territories, and conspectuses of land legislation in force and of the systems of land tenure, have appeared in earlier issues of the Year Book (*see* List of Special Articles, etc., preceding General Index to this volume).

The land legislation in force in the several States may be classified broadly under five major types of land enactments, namely, Crown Lands Acts, Closer Settlement Acts, Mining Acts, Returned Service Personnel Settlement Acts, and Advances to Settlers Acts, but within the groupings there is, of course, a wide variety of individual Acts. In the two internal Territories, the legislation relating to lands is embodied in various Ordinances.

In each of the States, there is a Lands Department under the direction of a Minister who is charged generally with the administration of the Acts relating to the alienation, occupation and management of Crown Lands. In the Northern Territory, the Administrator, under the control of the Minister for Territories, is charged with the general administration of the Lands Ordinance and of Crown lands in the Northern Territory. In the Australian Capital Territory, the administration of the Leases Ordinances is in the hands of the Minister for the Interior.

In each of the States, there is also a Mines Department which is empowered under the several Acts relating to mining to grant leases and licences of Crown lands for mining and allied purposes. In the Northern Territory, there are several ordinances relative to mining.

As with land legislation, land tenures may be classified under broad headings; these indicate the nature of the tenure and comprise:—Free Grants and Reservations, Unconditional Purchases of Freehold, Conditional Purchases of Freehold, Leases and Licences under Land Acts, Closer Settlement, Leases and Licences under Mining Acts, and Settlement of Returned Service Personnel.

The following sections contain figures showing the extent of the different tenures in the several States and Territories, together with some general descriptive matter. Information in greater detail was provided in issue No. 48 and previous issues.

**2. Forms of Land Tenure.**—(i) *Free Grants and Reservations.* Provision exists in all States except Tasmania for the disposal of Crown lands for public purposes by free grants, and in all States for the temporary and or permanent reservation of Crown lands for public purposes. In the Northern Territory, any Crown lands not subject to any right of, or contract for, purchase, may be resumed for public purposes, and the whole or any portion of the lands resumed may be reserved for that purpose. In the Australian Capital Territory, under the *Seat of Government (Administration) Act 1910*, Crown lands may not be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of that Act.

The following table shows the total areas reserved in each State (except Tasmania) and in the Northern Territory, and the grand totals, at the end of the years 1957 to 1961.

#### AREAS RESERVED

('000 Acres)

Year	N.S.W. (a)	Victoria (b)	Qld. (b)	S. Aust. (a)	W. Aust. (a)	Nor. Terr. (a)	Total (c)
1957.. ..	21,353	8,649	26,097	22,641	56,938	47,928	183,606
1958.. ..	21,118	8,621	24,884	22,740	58,310	47,985	183,658
1959.. ..	20,901	8,624	24,891	22,742	59,807	48,985	185,950
1960.. ..	15,956	8,642	25,002	22,747	59,860	59,591	191,798
1961.. ..	15,877	8,646	25,006	22,750	59,885	59,590	191,754

(a) At 30th June.  
not available.

(b) At 31st December.

(c) Excludes Tasmania, for which details are



Details of the purposes for which areas at the end of 1961, as shown above, were reserved are given hereunder.

*New South Wales.* For travelling stock, 5,049,592 acres; forest reserves, 1,557,468 acres; water and camping reserves, 784,053 acres; mining reserves, 1,018,785 acres; for recreation and parks, 685,820 acres; other reserves, 6,781,595 acres; total, 15,877,313 acres.

*Victoria.* For roads, 1,650,105 acres; water reserves, 316,268 acres; agricultural colleges, 8,434 acres; forest and timber reserves, 5,721,446 acres; mallee reserves, 410,000 acres; other reserves, 540,136 acres; total, 8,646,389 acres.

*Queensland.* Timber reserves, 3,023,741 acres; for State forests and national parks, 6,012,794 acres; aboriginal reserves, 6,543,381 acres; for streets, surveyed roads and stock routes, 3,832,223 acres; general reserves, 5,593,687 acres; total, 25,005,826 acres.

*South Australia.* Total area of surveyed roads, railways and other reserves, 22,749,925 acres, including 18,210,654 acres set apart as aboriginal reserves.

*Western Australia.* For State forests, 4,343,153 acres; timber reserves, 1,779,581 acres; other reserves, 53,762,628 acres; total, 59,885,362 acres.

*Northern Territory.* For aboriginal, defence and public requirements, 59,589,840 acres.

(ii) *Conditional and Unconditional Purchases of Freehold.* Crown lands in the States may be disposed of by unconditional purchase at public auction or by certain other forms of purchase (for details see Official Year Book No. 48, pp. 91-2), and conditional purchases of various types may also be made. In the Northern Territory, only 0.1 per cent. of the total area is alienated, the remainder being held under lease or licence, or reserved for various purposes or unoccupied. In the Australian Capital Territory, about 18 per cent. of the area is alienated or in process of alienation in consequence of contracts existing prior to the establishment of the Territory.

(iii) *Leases and Licences.* (a) *General.* Well over half the area of the States of New South Wales and South Australia and of the two Territories and more than four-fifths of that of Queensland are occupied under some form of lease or licence. In Victoria, only about one-ninth of the area is leased or licensed, more than half being alienated; in Western Australia, more than one-third is leased or licensed, most of the remainder being unoccupied; and in Tasmania only one-tenth is leased or licensed, while more than half the area of the State is occupied by the Crown or unoccupied, and the remainder alienated. Areas leased or licensed in the States are held under Crown lands Acts, closer settlement Acts, mining Acts, etc., and in the Territories under various Ordinances.

(b) *Land Acts and Ordinances.* The types of lease and licence which obtain under land legislation cover a wide range, and vary with each State or Territory. The following are examples:—grazing or pastoral, settlement and closer settlement, settlement purchase, conditional and conditional purchase, perpetual and Crown; however, the variations of these forms and the special forms of lease and licence which exist would extend this list considerably. Details of the various types in existence are given in Official Year Book No. 48, pp. 93-4, and some detail is included in the tables on pp. 106-108.

The following table shows the areas held under lease or licence other than mining and forestry in the States, the total under lease or licence for the Territories, and the grand totals, at the end of the years 1957 to 1961.

AREAS OCCUPIED UNDER LEASE OR LICENCE OTHER THAN MINING  
AND FORESTRY  
(’000 Acres)

Year	N.S.W. (a)	Vic. (b)	Q’land (b)	S. Aust. (a)	W. Aust. (a)	Tas. (a)	N.T. (a) (c)	A.C.T. (a) (c)	Total
1957 ..	113,947	5,851	363,473	139,727	212,831	1,576	177,028	296	1,014,729
1958 ..	114,451	6,901	364,681	138,370	217,746	1,504	174,399	293	1,018,345
1959 ..	114,801	7,186	362,146	138,304	223,476	1,624	174,697	293	1,022,527
1960 ..	113,359	7,188	366,277	145,377	223,532	1,482	179,021	293	1,036,529
1961 ..	111,065	6,459	366,279	145,752	227,702	1,301	179,049	293	1,037,900

(a) At 30th June.

(b) At 31st December.

(c) Leases and licences for all purposes.

(c) *Mining Acts and Ordinances.* In addition to the lands held under lease or licence under land legislation, there are also areas occupied under mining Acts for the purpose of prospecting or mining for gold and other minerals. Details of the various types of mining lease and licence are given in Official Year Book No. 48, pp. 94-5.

Areas occupied in the States at the end of the years 1957 to 1961 are shown in the following table.

AREAS OCCUPIED UNDER MINING ACTS AND ORDINANCES  
(<sup>0</sup>00 Acres)

Year	N.S.W. (a)	Victoria	Q'land (b)	S. Aust. (a) (b)	W. Aust. (c)	Tasmania (b)	N. Terr.	Total (d)
1957 ..	327	36	587	780	162	38	29	1,959
1958 ..	386	43	650	796	164	37	27	2,103
1959 ..	399	40	649	784	164	46	25	2,107
1960 ..	310	47	674	1,852	168	52	36	3,139
1961 ..	321	66	731	1,176	155	45	36	2,530

(a) Year ended 30th June.

(b) Excludes lands held under miners' rights and dredging claims.

(c) Excludes holdings under miners' rights.

(d) Excludes Australian Capital Territory, included in previous table.

(d) *Oil Prospecting or Exploring.* The following table shows for each year from 1957 to 1961 the areas occupied in each State under authorities to prospect or explore for petroleum. The legislation relating to the search for petroleum differs from State to State, and the terminology of, and the conditions applying to, the forms of authorization differ accordingly. The figures below relate to the exploratory stage of operations.

AREAS OCCUPIED UNDER AUTHORITIES TO PROSPECT OR EXPLORE  
FOR PETROLEUM  
(<sup>0</sup>00 Acres)

Year	N.S.W. (a)	Victoria	Q'land	S. Aust. (a)	W. Aust.	Tasmania	N. Terr.	Total
1957 ..	34,739	2,940	221,510	141,944	234,248	..	(b)	c 635,381
1958 ..	37,251	2,805	340,314	127,635	264,968	..	(b)	c 772,973
1959 ..	37,251	31,653	527,954	170,385	319,598	..	36,938	1,123,779
1960 ..	121,636	34,703	517,650	207,217	402,830	..	49,008	1,333,044
1961 ..	17,139	34,703	505,469	201,521	394,071	..	70,543	1,223,446

(a) Year ended 30th June.

(b) Not available.

(c) Excludes Northern Territory.

## § 2. Closer Settlement and War Service Settlement

1. *Closer Settlement.*—Particulars of the methods of acquisition and disposal of land for the closer settlement of civilians and returned service personnel (1914-18 War) in the several States are given in issues of the Official Year Book up to No. 22 (*see* No. 22, pp. 163-9), and the results of the operations of the several schemes have appeared in subsequent issues in considerable detail. However, the amalgamation in some States of closer settlement records with those of other authorities has since made it impossible to obtain up-to-date figures for those States and for Australia as a whole. Official Year Book No. 48 contains particulars as at 30th June, 1960 of the areas and costs for those States for which separate information is available (*see* p. 96).

2. *Settlement of Returned Service Personnel, 1939-45 War and Korea-Malaya Operations.*—(i) *General.* The War Service Land Settlement Scheme provides for the settlement on the land of eligible ex-servicemen from the 1939-45 War and the Korea-Malaya operations. Finance for capital expenditure under the scheme in South Australia, Western Australia and Tasmania and for special loans to New South Wales and Victoria is provided through *Loan (War Service Land Settlement) Acts*. Finance for other aspects

of the Scheme in all States is provided by annual parliamentary appropriation. The *States Grants (War Service Land Settlement) Act 1952* provides that the responsible Commonwealth Minister may make grants of financial assistance to the States under such terms as he may from time to time determine.

New South Wales, Victoria and Queensland agreed, at the inception of the Scheme, to find their own finance for the acquisition and development of properties. In 1954, Queensland abandoned the Scheme and made available for general settlement all unallotted lands held under it.

Detailed information about the agreements and the methods of operation and administration of the Scheme are contained in earlier Year Books (*see List of Special Articles, etc., preceding General Index to this volume*).

(ii) *Summary of Operations to 30th June, 1962.* The following table shows the operations of the War Service Land Settlement Scheme in each State up to 30th June, 1962.

### WAR SERVICE LAND SETTLEMENT

SUMMARY TO 30TH JUNE, 1962

State	Land acquired	Farms allotted		Farms in course of development		Other
		No.	Acres	No.	Acres	
New South Wales(a) ..	Acres 9,094,021	3,047	9,094,021	..	..	..
Victoria ..	b1,181,599	3,048	1,181,599	..	..	..
Queensland ..	398,524	470	218,640	..	..	(c) 179,884
South Australia ..	755,873	1,015	671,207	7	10,000	(d) 74,666
Western Australia ..	b2,059,472	1,001	1,934,281	26	(e) 125,191	..
Tasmania ..	(b) 446,761	515	414,661	81	32,100	..
<b>Total ..</b>	<b>13,936,250</b>	<b>9,096</b>	<b>13,514,409</b>	<b>114</b>	<b>167,291</b>	<b>254,550</b>

(a) In New South Wales, properties are regarded by the State as being allotted at the date of acquisition. Figures adjusted following review. (b) Figures adjusted following survey. Other land originally approved, but no longer required, has been disposed of outside the Scheme. (c) War Service Land Settlement was discontinued in 1954, and unallotted lands were made available for general settlement. (d) Will be surveyed on completion of projects under development. (e) This figure is subject to correction following the finalization of survey of large tracts of virgin crown land developed under the scheme.

(iii) *Expenditure.* The following table shows a dissection of the Commonwealth expenditure on War Service Land Settlement to 30th June, 1962.

### WAR SERVICE LAND SETTLEMENT (1939-45 WAR AND KOREA-MALAYA OPERATIONS): COMMONWEALTH EXPENDITURE TO 30th JUNE, 1962

(£'000)

Advances to States	N.S.W.	Vic.	Qld	S. Aust.	W. Aust.	Tas.	Total
For acquisition of land ..	..	..	..	3,457	3,483	2,515	9,455
For development and improvement of land ..	..	..	..	14,107	19,584	14,444	48,135
Special loans ..	6,771	7,199	..	..	..	..	13,970
Commonwealth contributions to excess cost over valuation ..	624	5,343	116	1,456	708	588	8,835
To provide credit facilities to settlers ..	..	..	..	9,426	18,103	4,622	32,151
For remission of settlers' rent and interest ..	429	184	36	210	505	135	1,499
For payment of living allowances to settlers ..	1,014	1,204	163	384	475	142	3,382
For operation and maintenance of irrigation projects ..	..	..	..	837	16	2	855
Loss on advances ..	15	3	335	6	156	21	536
Cost of administration of credit facilities ..	..	..	..	343	678	147	1,168
<b>Total ..</b>	<b>8,853</b>	<b>13,933</b>	<b>650</b>	<b>30,226</b>	<b>43,708</b>	<b>22,616</b>	<b>119,986</b>

(iv) *Loans and Allowances (Agricultural Occupations) Scheme.* Full details of the measures taken for the re-establishment of ex-servicemen in rural occupations were given in an earlier Year Book (see List of Special Articles, etc., preceding General Index to this volume). These measures provide for a scheme of loans and allowances to assist ex-servicemen in establishing themselves in agricultural occupations.

The loans are made to eligible ex-servicemen for the purchase of land, effecting improvements on land, the acquisition of tools of trade, livestock, plant or equipment, the establishment of a co-operative business with other persons, reduction or discharge of a mortgage, bill of sale, etc. At 30th June, 1962, 14,307 loans had been approved and advances amounting to £10,175,645 had been made.

The allowances are payable only in respect of the period during which the income derived from the occupation by the ex-serviceman concerned is considered inadequate. At 30th June, 1962, 16,114 applications for allowances had been made, and the total amount paid in allowances was £2,276,597.

Official Year Book No. 48 contains details of the applications received and approved and the amounts involved for the individual States and Territories to 30th June, 1961 (see p. 98). There has been little subsequent change.

(v) *War Service Land Settlement Division—Total Expenditure.* The following table shows details of the total expenditure on various projects by the War Service Land Settlement Division from the commencement of operations to 30th June, 1962.

COMMONWEALTH WAR SERVICE LAND SETTLEMENT DIVISION:  
EXPENDITURE TO 30th JUNE, 1962  
(£'000)

Project	N.S.W.	Vic.	Qld	S. Aust.	W. Aust.	Tas.	Total Expenditure	Receipts and Re-payments	Net Expenditure
War Service Land Settlement expenditure from revenue or loan funds	8,853	13,933	650	30,227	43,708	22,615	119,986	35,698	84,288
Agricultural loans(a) ..	4,283	1,797	874	827	1,972	406	(b) 10,176	6,582	5,879
Agricultural allowances	587	297	478	325	481	116	(c) 2,285	..	1,474
Administration expenses	736	160	71	87	374	46	1,474	..	1,474
Rural training ..	330	503	106	190	227	108	1,464	149	1,315
Total .. ..	14,789	16,690	2,179	31,656	46,762	23,291	(d) 135,385	42,429	92,956

(a) Includes expenditure on new loans of moneys repaid by borrowers. £10,000, and New Guinea, £7,000.

(c) Includes New Guinea, £1,000.

(b) Includes Northern Territory, £10,000, and New Guinea, £8,000.

(d) Includes Northern Territory,

### § 3. Alienation and Occupation of Crown Lands

1. *General.*—The figures in the previous parts of this chapter show separate particulars of various forms of land settlement. The following tables set out the position with regard to the tenure of land in each State, in the Northern Territory, and in the Australian Capital Territory during 1961. A summary for each State and Territory and for Australia as a whole is also included. Particulars for each year from 1951 to 1961 appear in *Primary Industries Bulletin* No. 55, Part I.—*Rural Industries*, page 1. The area occupied includes roads, permanent reserves, forests, etc. In some cases, lands which are permanently reserved from alienation are occupied under leases or licences, and have been included therein. Lands occupied under leases or licences for pastoral purposes are frequently held on short tenures only, and could thus be made available for settlement practically whenever required.

2. *New South Wales.*—The total area of New South Wales is 198,037,120 acres, of which 28.2 per cent. had been alienated at 30th June, 1961; 5.4 per cent. was in process of alienation; 57.1 per cent. was held under leases and licences; and the remaining 9.3 per cent. was unoccupied, or held by the Crown.

**ALIENATION AND OCCUPATION OF CROWN LANDS: NEW SOUTH WALES**  
**30th JUNE, 1961**  
**(Acres)**

Particulars	Area	Particulars	Area
1. Alienated .. .. .	55,767,025	3. Held under leases and licences— Homestead selections and grants Alienable leases, long-term and perpetual .. .. . Long-term leases with limited right of alienation .. .. . Other long-term leases .. .. . Short-term leases and temporary tenures .. .. . Forest leases .. .. . Mining and auriferous leases .. .. .	1,692,481 23,467,241 1,522,692 81,928,559 2,453,601 1,791,200 201,609
		<i>Total</i> .. .. .	113,057,383
2. In process of alienation— Conditional purchases .. .. . Closer settlement purchases .. .. . Soldiers' group purchases .. .. . Other forms of sale .. .. .	9,006,666 1,269,654 131,180 376,223	4. Unoccupied— Particulars of Lord Howe Island not being available, the area, 3,220 acres, is included under unoccupied (approximate) .. .. .	18,428,989
<i>Total</i> .. .. .	10,783,723	5. Total Area of State .. .. .	198,037,120

3. Victoria.—The total area of Victoria is 56,245,760 acres, of which 56.1 per cent. had been alienated up to the end of 1961; 2.6 per cent. was in process of alienation under deferred payments and closer settlement schemes; 11.5 per cent. was occupied under leases and licences; and 29.8 per cent. was unoccupied or held by the Crown.

**ALIENATION AND OCCUPATION OF CROWN LANDS: VICTORIA**  
**31st DECEMBER, 1961**  
**(Acres)**

Particulars	Area	Particulars	Area
1. Alienated .. .. .	31,531,121	3. Leases and licences held— Under Lands Department— Perpetual leases .. .. . Agricultural college leases .. .. . Other leases and licences .. .. . Temporary (yearly) grazing licences .. .. .	1,093,497 28,655 1,872 5,335,049
2. In process of alienation— Exclusive of mallee and closer settlement lands .. .. . Mallee lands (exclusive of closer settlement lands) .. .. . Closer settlement lands .. .. .	176,723 1,063,148 231,117	<i>Total</i> .. .. .	6,459,073
<i>Total</i> .. .. .	1,470,988	4. Occupied by the Crown or un- occupied .. .. .	16,784,578
		5. Total Area of State .. .. .	56,245,760

4. Queensland.—The total area of this State is 426,880,000 acres, of which, on 31st December, 1961, 6.1 per cent. was alienated; 0.5 per cent. was in process of alienation; and 86.3 per cent. was occupied under leases and licences. The remainder, 7.1 per cent., was either unoccupied or held as reserves or for roads.

**ALIENATION AND OCCUPATION OF CROWN LANDS: QUEENSLAND**  
**31st DECEMBER, 1961**  
**(Acres)**

Particulars	Area	Particulars	Area
1. Alienated .. .. .	26,031,736	3. Occupied under leases and licences—	
		Pastoral leases .. .. .	244,178,560
		Occupation licences .. .. .	17,586,560
		Grazing selection and settlement farm leases .. .. .	94,386,612
		Leases—special purposes(a) .. .. .	2,950,333
		Mining leases .. .. .	2,192,015
		Perpetual lease selections and perpetual lease prickly pear selections .. .. .	6,740,092
		Auction perpetual leases, etc. .. .. .	41,208
		Forest grazing leases (of reserves) .. .. .	395,520
		<i>Total</i> .. .. .	<i>368,470,900</i>
		4. Reserves (net, not leased) .. .. .	18,342,151
		5. Surveyed roads and surveyed stock routes .. .. .	3,832,223
		6. Unoccupied .. .. .	8,118,636
2. In process of alienation .. .. .	2,084,354	7. Total Area of State .. .. .	426,880,000

(a) Special leases of Crown land, 514,401 acres; special leases of reserves, 2,435,932 acres.

5. South Australia.—The area of South Australia is 243,244,800 acres and at 30th June, 1961, 6.5 per cent. was alienated; 0.2 per cent. in process of alienation; 59.9 per cent. occupied under leases and licences; and 33.4 per cent. occupied by the Crown or unoccupied.

**ALIENATION AND OCCUPATION OF CROWN LANDS: SOUTH AUSTRALIA**  
**30th JUNE, 1961**  
**(Acres)**

Particulars	Area	Particulars	Area
1. Alienated .. .. .	15,681,235	3. Held under lease and licence(a)—	
		Perpetual leases, including irrigation leases .. .. .	20,291,497
		Pastoral leases .. .. .	122,257,728
		Other leases and licences .. .. .	3,202,474
		<i>Total</i> .. .. .	<i>145,751,699</i>
		4. Area unoccupied(b) .. .. .	81,323,438
2. In process of alienation .. .. .	488,428	5. Total Area of State .. .. .	243,244,800

(a) Mining leases and licences have also been issued over an area comprising 202,696,415 acres.

(b) Includes surveyed roads, railways and other reserves, salt water lakes, lagoons, and fresh water lakes.

6. Western Australia.—The total area of Western Australia is 624,588,800 acres, of which, at 30th June, 1961, 4.4 per cent. was alienated; 2.1 per cent. was in process of alienation; and 37.0 per cent. was occupied under leases and licences issued either by the Lands, Mines or Forests Departments. The balance of 56.5 per cent. was unoccupied.

**ALIENATION AND OCCUPATION OF CROWN LANDS: WESTERN AUSTRALIA**  
**30th JUNE, 1961**  
**(Acres)**

Particulars	Area	Particulars	Area
1. Alienated .. .. .	27,786,699	3. Leases and licences in Force—	
		(i) Issued by Lands Department—	
		Pastoral leases ..	220,128,193
		Special leases ..	4,608,621
		Leases of reserves ..	869,901
		Residential lots ..	4,564
		Perpetual leases ..	1,495,824
		(ii) Issued by Mines Department—	
		Gold-mining leases ..	18,098
		Mineral leases ..	40,401
		Miners' homestead leases ..	33,375
		(iii) Issued by Forests Department—	
		Timber permits ..	4,011,966
		<i>Total</i> .. .. .	<i>231,210,943</i>
		4. Area unoccupied .. ..	352,761,330
<i>Total</i> .. .. .	<i>12,829,828</i>	5. Total Area of State .. ..	<i>624,588,800</i>

7. **Tasmania.**—The total area of Tasmania is 16,778,000 acres, of which, at 30th June, 1961, 38.2 per cent. had been alienated; 1.3 per cent. was in process of alienation; 8.4 per cent. was occupied under leases and licences for either pastoral, agricultural, timber or mining purposes, or for closer settlement; while the remainder (52.1 per cent.) was unoccupied or reserved by the Crown.

**ALIENATION AND OCCUPATION OF CROWN LANDS: TASMANIA**  
**30th JUNE, 1961**  
**(Acres)**

Particulars	Area	Particulars	Area
1. Alienated .. .. .	6,403,018	3. Leases and licences— <i>continued</i>	
		(i) Issued by Lands Department— <i>continued</i>	
		Soldier settlement ..	44,659
		Short-term leases ..	585
		(ii) Issued by Mines Department ..	52,467
		<i>Total</i> .. .. .	<i>1,411,433</i>
		4. Area occupied by the Crown or unoccupied .. ..	8,752,024
		5. Total Area of State .. ..	<i>16,778,000</i>

8. **Northern Territory.**—The area of the Northern Territory is 335,116,800 acres, of which, at 30th June, 1961, only 0.1 per cent. was alienated; 53.4 per cent. was held under leases and licences; 17.8 per cent. was reserved for aboriginal, defence and public requirements; and the remaining 28.7 per cent. was unoccupied and unreserved.

The following shows the mode of occupancy of areas at 30th June, 1961:—alienated, 375,922 acres; leased—pastoral leases, 147,331,152 acres; other leases, licences and mission stations, 31,718,196 acres; total leased, 179,049,348 acres; reserved for aboriginal, defence and public requirements, 59,589,840 acres; unoccupied and unreserved, 96,101,690 acres; total, 335,116,800 acres.

9. **Australian Capital Territory.**—Alienated land of the Territory at the end of 1961 comprised 11.0 per cent. of the total area; land in process of alienation 6.9 per cent.; land held under lease and licence 48.7 per cent.; land otherwise occupied, including city tenures, 8.1 per cent.; and unoccupied 25.3 per cent.

The following are the particulars of land areas in the Australian Capital Territory at the end of 1961:—alienated 65,857 acres; in process of alienation 41,224 acres; leased—grazing, agricultural, etc., leases, 275,458 acres; grazing licences, 11,100 acres; otherwise occupied, including city area leases, 48,604 acres; total leased, 335,162 acres; unoccupied, 140,686 acres; total, 582,929 acres. Including the Jervis Bay area of 18,000 acres—6,266 acres leased and 11,734 acres otherwise occupied—the grand total for the whole Territory is 600,929 acres.

10. **Summary.**—The following table provides a summary for each State and Territory, and for Australia as a whole, of the alienation and occupation of Crown lands in 1961.

#### ALIENATION AND OCCUPATION OF CROWN LANDS, 1961

State or Territory	Private lands				Crown lands				Total area
	Alienated		In process of alienation		Leased or licensed		Other (a)		
	'000 acres	Per cent.	'000 acres	Per cent.	'000 acres	Per cent.	'000 acres	Per cent.	
N.S.W.(b) ..	55,767	28.2	10,784	5.4	113,057	57.1	18,429	9.3	198,037
Victoria(c) ..	31,531	56.1	1,471	2.6	6,459	11.5	16,785	29.8	56,246
Queensland(c) ..	26,032	6.1	2,084	0.5	368,471	86.3	30,293	7.1	426,880
S. Aust.(b) ..	15,681	6.5	488	0.2	145,752	59.9	81,324	33.4	243,245
W. Aust.(b) ..	27,786	4.4	12,830	2.1	231,211	37.0	352,761	56.5	624,588
Tasmania(b) ..	6,403	38.2	212	1.3	1,411	8.4	8,752	52.1	16,778
Nor. Terr.(b) ..	376	0.1	..	..	179,049	53.4	155,692	46.5	335,117
A.C.T.(c)(d) ..	66	11.0	41	6.9	342	56.8	152	25.3	601
Australia ..	163,642	8.6	27,910	1.5	1,045,752	55.0	664,188	34.9	1,901,492

(a) Occupied by Crown; reserved; unoccupied; unreserved.  
31st December.

(d) Includes Jervis Bay area.

(b) At 30th June.

(c) At

### § 4. Advances to Settlers

1. **General.**—A detailed statement regarding the terms and conditions governing advances to settlers in the several States and the Northern Territory may be found in earlier issues of the Official Year Book (*see* List of Special Articles, etc., preceding General Index to this volume).

The summaries of loans and advances under State authorities in the following paragraphs are compiled from returns supplied by the various State government lending agencies in the several States. They include transactions in lands acquired under closer and soldier settlement schemes, but exclude balances owing on former Crown lands sold on the conditional purchase, etc., system. Advances made by general banking institutions in the course of their ordinary business are not included. For information on such advances *see* Chapter XX. *Private Finance*.

The amounts outstanding do not represent the actual differences between the total advances and settlers' repayments, for considerable remissions of indebtedness have been made in all States as a result of re-appraisements of land values and the writing down of debts. In general, they include both principal and interest outstanding.

A summary for Western Australia is not included, as practically the only governmental funds being made available are Commonwealth (*see* § 2 above).

In New South Wales and Victoria, expenditure on the acquisition, development and improvement of land for war service land settlement is provided for by the States, and particulars thereof are included in the respective summaries. In Queensland, no money is paid for the value of the land acquired, most land being occupied on lease from the Government, but advances in respect of improvements are included. In the other States, this expenditure is provided for by the Commonwealth, and particulars are included in § 2 above.

Loans (Agricultural Occupations) under the *Commonwealth Re-establishment and Employment Act* 1945 and certain advances for the purchase of wire-netting and for other purposes made from finance provided by the Commonwealth are included in the summaries following.

2. **New South Wales.**—The following table shows particulars respecting advances, etc., under State authorities to 30th June, 1961.



## ADVANCES TO SETTLERS, ETC.: NEW SOUTH WALES

Advances, etc.	Advances, etc., made during 1960-61	Total advances, etc. to 30th June, 1961	Balances outstanding at 30th June, 1961	
			Number	Amount
<i>Department of Lands—</i>	£	£		£
Closer land settlement .. .. .	..	15,126,063	6,187	(b) 1,400,021
Soldier settlers 1914-18 War .. .. .	..	3,196,005	45	12,444
1939-45 War .. .. .	135,186	14,592,467	4,397	3,923,378
Soldier land settlement—Acquisition, develop- ment and improvement of land, War Service Land Settlement Agreement Act .. .. .	83,865	28,749,212	2,383	c26,814,580
Wire netting .. .. .	..	1,494,653	6	596
Prickly pear .. .. .	40,194	444,678	239	30,555
<i>Rural Bank—</i>				
<i>General Bank Department—</i>				
Commonwealth Re-establishment and Employ- ment Act 1945 .. .. .	..	4,239,659	1,007	491,022
Other .. .. .	3,996,622	99,179,357	7,429	18,622,149
<i>Government Agency Department—</i>				
Rural industries .. .. .	92,125	9,242,793	590	255,920
Unemployment relief and dairy promotion .. .. .	308,223	4,416,858	2,075	1,195,924
Rural reconstruction(d) .. .. .	429,799	14,999,338	747	2,427,026
Shallow boring .. .. .	135,300	2,063,188	416	531,432
Farm water supplies .. .. .	192,879	1,020,259	787	670,823
Soil conservation .. .. .	32,541	115,846	162	94,658
Rivers and foreshores improvement .. .. .	..	4,916	23	815
Irrigation areas .. .. .	555,347	(e)	23,653	4,863,960
Government Guarantee Agency .. .. .	..	225,475	..	..
Closer Settlement Agency .. .. .	..	167,914	31	34,201
<b>Total .. .. .</b>	<b>6,002,081</b>	<b>199,278,681</b>	<b>50,177</b>	<b>61,369,504</b>

(a) In addition, the sum of £1,927,687 has been expended to 30th June, 1961, on subdivision maintenance, improvement and disposal of land acquired for closer settlement. (b) Excludes an amount of £4,691,737 capitalized to 30th June, 1961, on conversion into leasehold under the Closer Settlement Amendment (Conversion) Act 1943. (c) Includes capital value of 2,612 Closer Settlement Leases, £19,578,821, and unpaid balances on 2,383 Structural Improvement Accounts, £7,235,759. (d) Includes Debt Adjustment, Drought Relief, and Marginal Wheat Areas Scheme Advances (Commonwealth and State Monies), amount outstanding £1,109,471. (e) Not available. (f) Incomplete. (g) Includes £17,000,000 additional funds not previously brought into account in respect of previous years.

3. Victoria.—The following table shows particulars respecting advances, etc., under State authorities to 30th June, 1961.

## ADVANCES TO SETTLERS, ETC.: VICTORIA

Advances, etc.	Advances, etc., made during 1960-61	Total advances, etc., to 30th June, 1961	Balances outstanding at 30th June, 1961	
			Number	Amount
<i>State Savings Bank, Crédit Foncier—</i>	£	£		£
Civilians .. .. .	49,310	12,061,008	438	461,185
Discharged soldiers .. .. .	..	848,567	9	2,205
<i>Treasurer—</i>				
Cool stores, canneries, etc. .. .. .	124,416	1,842,783	(a) 2	796,038
<i>Department of Lands and Survey—</i>				
Closer settlement settlers and soldier settlers .. .. .	..	b 46,904,855	1,604	1,527,208
Cultivators of land .. .. .	..	2,463,557	47	11,199
Wire netting .. .. .	2,571	736,052	41	7,307
<i>Soldier Settlement Commission—</i>				
<i>For Soldier Settlement—</i>				
Purchase of land .. .. .	34,992	19,702,281	(c)	7,852,808
Development and improvement of holdings .. .. .	1,378,732	26,922,880	(c)	(d)
Advances for—				
Settlers' lease liability .. .. .	2,368,902	24,362,521	2,469	21,282,265
Development of single unit farms .. .. .	14,802	11,942,879	1,739	6,712,698
Improvement stock, etc. .. .. .	200,407	5,880,405	808	950,783
Other advances .. .. .	30,108	3,441,724	533	446,976
<i>For general land settlement—</i>				
Purchase of land .. .. .	(e) 126,100	567,535	(c)	3,884,786
Development and improvement of holdings .. .. .	(e) 959,584	3,359,546	(c)	(d)
Advances for sale of land not required for land settlement .. .. .	14,643	21,806	1	7,140
<b>Total .. .. .</b>	<b>5,304,567</b>	<b>161,058,399</b>	<b>(f) 7,691</b>	<b>43,942,598</b>

(a) Number of companies. (b) Represents consolidated debts of settlers (Section 30, Act 4091). (c) Not available. (d) After allowing an amount of £12,184,832, representing excess acquisition, development and improvement costs which has been written off. (e) Includes amounts transferred from Soldier Settlement at 1st July, 1959. (f) Incomplete.

4. **Queensland.**—The following table shows particulars of advances, etc., to 30th June, 1961. The figures exclude transactions in land.

## ADVANCES TO SETTLERS, ETC.: QUEENSLAND

Advances, etc.	Advances, etc., made during 1960-61	Total advances, etc., to 30th June, 1961	Balances outstanding at 30th June, 1961	
			Number	Amount
Co-ordination of Rural Advances and Agricultural Bank Acts .. .. .	£ 3,471,884	£ 37,221,820	5,486	£ 15,202,182
Discharged soldiers' settlement (a) .. .. .	.. .. .	2,467,913	166	31,753
Water facilities .. .. .	.. .. .	58,079	..	..
Wire netting, etc. .. .. .	.. .. .	1,019,403	24	833
Seed wheat and barley .. .. .	4,156 (b)	163,835	(c)	13,627
Drought relief .. .. .	30,375	1,359,434	106	131,843
War Service Land Settlement .. .. .	124,330	4,613,949	254	1,344,934
Income (Unemployment Relief and State Development) Tax Acts (d) .. .. .	.. .. .	1,183,891 (e)	82	5,443
Irrigation .. .. .	.. .. .	54,914	2	158
Farmers' Assistance (Debt Adjustment Acts) .. .. .	.. .. .	1,055,590	27	37,752
Commonwealth Re-establishment and Employment Act 1945 .. .. .	.. .. .	874,155	77	19,388
Water Supplies Assistance Act .. .. .	165,501	247,487	155	248,311
<b>Total</b> .. .. .	<b>3,796,246</b>	<b>50,320,470 (e)</b>	<b>6,379</b>	<b>17,036,224</b>

(a) Includes advances to group settlers through the Lands Department, as well as advances through the Agricultural Bank. (b) Includes accrued interest. (c) Not available. (d) Largely for relief to cotton and tobacco growers and for rural development (ringbarking, clearing, fencing, etc.). (e) Incomplete.

5. **South Australia.**—The following table shows particulars respecting advances, etc., under State authorities to 30th June, 1961.

## ADVANCES TO SETTLERS, ETC.: SOUTH AUSTRALIA

Advances, etc.	Advances, etc., made during 1960-61	Total advances, etc., to 30th June, 1961	Balances outstanding at 30th June, 1961	
			Number	Amount
<b>Department of Lands—</b>	£	£		£
Advances to soldier settlers .. .. .	.. .. .	5,071,780	30	1,008,318
Advances to blockholders .. .. .	.. .. .	41,451	..	..
Advances for sheds and tanks .. .. .	.. .. .	75,693	..	..
Advances under Closer Settlement Acts .. .. .	.. .. .	2,730,516	520	558,663
Advances under Agricultural Graduates Settlement Act .. .. .	.. .. .	62,258	..	..
Settlement of Returned Service Personnel, 1939-45 War .. .. .	1,778,914	7,964,820	1,013	5,039,286
Advances under Crown Lands Development Act .. .. .	128,962	363,343	50	334,690
<b>Primary Producers Assistance Department—</b>				
Advances in drought-affected areas .. .. .	.. .. .	2,146,768	4	1,088
Advances under Farmers Relief Acts .. .. .	.. .. .	4,435,509	2	413
<b>Irrigation Branch—</b>				
Advances to civilians .. .. .	.. .. .	291,443	27	7,282
Advances to soldier settlers .. .. .	.. .. .	1,048,174	226	215,054
<b>State Bank of South Australia—</b>				
Advances to settlers for improvements .. .. .	52,446	1,788,882	258	299,865
Advances under Vermin and Fencing Acts .. .. .	6,577	1,412,579	77	33,245
Advances under Loans to Producers Act .. .. .	251,711	2,640,475	127	1,841,801
Commonwealth Re-establishment and Employment Act 1945 .. .. .	.. .. .	827,486	271	141,730
<b>Total</b> .. .. .	<b>2,218,610</b>	<b>30,401,177</b>	<b>2,605</b>	<b>9,481,435</b>

6. **Western Australia.**—The operations prior to 1945 covered in this section related to moneys made available through, or by, the old Agricultural Bank and other Government Departments for the purpose of agricultural development. On 1st October, 1945, however, the Agricultural Bank was reconstituted as the Rural and Industries Bank of Western Australia, and was given authority to operate in similar manner to the associated banks. Certain securities in the books of the old bank were taken over by the general banking division of the new bank, and the clients concerned then operated with privileges and obligations similar to those provided by other banking institutions. The majority of the remaining securities, also, were eventually transferred.

At present, very limited funds are being made available by the State Government for advances for agricultural development, the bulk of the moneys for this purpose being provided by the Commonwealth Government under the War Service Land Settlement and Commonwealth Re-establishment and Employment Acts. Particulars of this expenditure are shown in § 2 above.

7. *Tasmania*.—The following table shows particulars of advances under State authorities to 30th June, 1961. Although advances made for the purchase of land for closer and soldier land settlement are not regarded as outstanding advances by the Department of Agriculture, the figures have been included in the table for comparative purposes; the areas so purchased have been leased on 99-year terms with an option of purchase which the leaseholder may exercise at any time.

#### ADVANCES TO SETTLERS, ETC.: TASMANIA

Advances, etc.	Advances, etc., made during 1960-61	Total advances, etc., to 30th June, 1961	Balances outstanding at 30th June, 1961	
			Number	Amount
<i>Agricultural Bank—</i>	£	£		£
State Advances Act and Rural Credits ..	192,570	4,074,175	801	913,739
Assistance to Fruitgrowers Act 1941 ..	..	34,556	..	..
Commonwealth Re-establishment and Employment Act 1945 ..	..	407,429	151	78,662
Primary Producers' Relief Act 1947 ..	..	297,846	49	9,631
<i>Minister for Agriculture—</i>				
<i>Soldier Settlers—</i>				
Advances ..	3,680	1,022,258	..	14,629
Purchase of estates, etc.(a) ..	9,462	2,582,489	250	253,954
<i>Closer Settlers—</i>				
Advances ..	14,600	117,407	10	14,719
Purchase of estates, etc.(a) ..	1,801	532,032	54	130,938
<b>Total ..</b>	<b>222,113</b>	<b>9,068,192</b>	<b>1,315</b>	<b>1,416,272</b>

(a) Not regarded by the Department as outstanding advances.

8. *Northern Territory*.—During the year 1960-61, seven advances totalling £21,034 were approved and advances made totalled £24,346. At 30th June, 1961, the balance outstanding from 101 settlers, including interest, was £186,537.

## CHAPTER V

### THE TERRITORIES OF AUSTRALIA

NOTE.—The internal Territories of Australia are the Northern Territory and the Australian Capital Territory. External Territories under the control of Australia are:—Norfolk Island; Papua (formerly British New Guinea); the Territory of New Guinea (under Trusteeship Agreement with the United Nations); Nauru (under Trusteeship Agreement with the United Nations); the Territory of Heard and McDonald Islands; the Australian Antarctic Territory; the Territory of Cocos (Keeling) Islands; and the Territory of Christmas Island. There is also the Territory of Ashmore and Cartier Islands, to which the laws, ordinances and regulations of the Northern Territory, of which it is deemed to form part, apply wherever applicable. Information on all except Ashmore and Cartier Islands is contained in the following pages, and details of the acquisition of all the Territories will be found on pages 5, 23 and 24 of Chapter I.

At the end of this chapter (pp. 164–78) there is a summary of the results of the Population Census of 30th June, 1961, for each of the external Territories of Norfolk Island, Papua, New Guinea, Nauru, Cocos (Keeling) Islands and Christmas Island. Corresponding information for the internal Territories is contained in Chapter IX. Population.

#### THE NORTHERN TERRITORY

##### § 1. Area and Population

1. *Area*.—Upon the extension of New South Wales westward to the 129th east meridian in 1825, the Northern Territory was incorporated in that colony, but in 1863 it was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands, it was transferred to the Commonwealth on 1st January, 1911. The total area is 523,620 square miles.

2. *Population*.—(i) *Population, excluding Full-blood Aborigines*. At the Census of 30th June, 1961, the population of the Territory, excluding full-blood aborigines, was 16,206 males, 10,889 females, 27,095 persons. Corresponding figures at the Census of 30th June, 1954, were 10,288, 6,181 and 16,469 respectively.

The European population of the Territory increased slowly from 670 at the Census of 1881 to 3,767 in 1918. By 1921, it had decreased to 2,458, and in 1933 was still only 3,306. It had risen to 9,116 at the Census of 1947, to 14,031 at the Census of 1954 and to 23,599 at the Census of 1961.

(ii) *The Aborigines*. For particulars relating to the aboriginal population, see Chapter IX. Population. All aborigines, by virtue of the *Nationality and Citizenship Act 1948–1960*, are Australian citizens. The *Welfare Ordinance 1953–1960* recognizes this, and provides that only those deemed to be in need of special care and assistance may be declared wards under the control of the Director of Welfare. Declaration as a ward is subject to the right of individual appeal. This is the same basic idea that is expressed in social legislation applying to those members of the white community who are not able to look after themselves or who have to be protected (e.g., neglected children). Reserves for wards comprise an area of 94,680 square miles.

## § 2. Legislation and Administration

On 1st January, 1911, the Territory was transferred from South Australia to the Commonwealth. The terms were outlined in Official Year Book No. 15, page 940. For particulars of the administration up to the *Northern Territory (Administration) Act 1931*, by which it was, for the second time, placed in the hands of an Administrator, see Official Year Book No. 38 and earlier issues.

The *Northern Territory (Administration) Act 1910-1959* provides for the constitution of a Legislative Council consisting of the Administrator as President, six official members, three nominated non-official members and eight elected members. The Council makes ordinances for the Territory, which must be submitted to the Administrator for assent. The Administrator may, or may not, assent to them, or he may reserve them for the Governor-General. The Governor-General may disallow any ordinance assented to by the Administrator within six months from the date of assent, and the operation of ordinances relating to certain matters, including Crown lands and aboriginal affairs, is dependent on his approval. Money votes may be proposed in the Council only by the Administrator himself, or by his permission or direction.

The Territory elects a member to the House of Representatives, who has the right to take part in debates, but may vote only on matters that relate solely to the Northern Territory.

## § 3. Physiography

The Territory is within the torrid zone, with the exception of a strip about 180 miles wide which lies south of the Tropic of Capricorn.

The low flat coast-line seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and laterite form the occasional cliffy headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries. The only practicable deep-water port, however, is Darwin.

Inland, the country generally is destitute of conspicuous landmarks. From the coast, there is a general rise southwards to the vicinity of the 17th or 18th parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply for the interior systems. Towards the centre of the continent, the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

## § 4. Climate, Fauna and Flora

1. *The Seasons*.—There are two main climatic divisions, the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly the whole of the rainfall occurs in the summer months. Further particulars appear in Official Year Book No. 6, page 1116.

2. *Fauna*.—The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous) and frogs abound. There are many varieties of fresh-water fish and littoral *Mollusca*. Butterflies and beetles are strongly represented. The termite is a pest which is capable of serious damage to wooden buildings unless special preventive measures are taken. A species of the ant builds anthills which sometimes attain great dimensions. Mosquitoes and sandflies are very troublesome, particularly in the wet season. Some types of native fauna are protected. Buffalo formerly existed in large herds, but their number has been reduced by indiscriminate shooting. Buffalo shooting is, however, now controlled by Ordinance.

3. **Flora.**—The vegetation is north Australian in type, but a number of the forms belong to the Malayan and Oceanic regions. In the coastal regions, tropical vegetation grows luxuriantly to the water's edge. In the north, cypress pine, bloodwood and paper-bark timbers are now cut and milled for local building purposes. Cypress pine is resistant to termites. On the wide expanses of plain country in the interior, there is little vegetation, the principal orders represented being:—*Euphorbiaceae*, *Compositae*, *Convolvulaceae*, *Rubiaceae*, *Goodeniaceae*, *Leguminosae*, *Utricaceae*.

## § 5. Production

1. **Agriculture.**—Up to the present, agriculture has made little progress in the Territory, although rice, peanuts, tobacco, grain sorghum, bananas, pineapples, citrus fruits, cashew nuts, mangoes, papaws, vegetables, fodder plants and improved pastures can be grown in certain areas. At the present time, commercial agricultural production is practically confined to vegetables and small-scale fruit production (mainly pineapple and citrus) for local consumption. A small industry is being developed in Townsville lucerne seed production.

In 1946, the Commonwealth Scientific and Industrial Research Organization commenced scientific surveys to determine more accurately the potentialities of the Territory. Surveys have been completed of the Katherine-Darwin, Barkly Tableland, Victoria River, and Alice Springs Regions. The survey of the Katherine-Darwin Region indicated that further investigations into agricultural possibilities were warranted. As a result, the C.S.I.R.O. established an agricultural research station at Katherine to investigate the possibilities of dry farming in a land system covering an area of about 7,000 square miles in the Katherine-Daly River basin. The research work at this station was sufficiently encouraging in respect of the production of peanuts, grain sorghum, and pastures to warrant investigations into the application of the findings on a commercial scale. To further the investigations, the Commonwealth Government approved of the establishment by the Northern Territory Administration, in 1952, of an experimental farm at Katherine for the purpose of carrying out trials with these crops to determine the requirements for farming them on a commercial scale. In 1956, the Administration established an experimental farm at Berrimah, near Darwin. Investigations into fruit and vegetable growing and pasture production are being carried out under both dry land and irrigated conditions.

The survey of the Katherine-Darwin Region also indicated various soil types in other parts of the Region on which agricultural production tests would be worthwhile. Trials on soil types are carried out by agricultural field officers of the Administration in various areas of the Territory considered potentially suitable for agriculture.

Prospects for rice growing were indicated by the survey, and in 1952, the Administration established rice research stations at Humpty Doo and at a location known as Sixty Mile, on the Stuart Highway, 60 miles from Darwin. Since the 1959–60 season, rice research work on the sub-coastal plains has been carried out in the Territory by the C.S.I.R.O. at its Coastal Plains Research Station at Middle Point, near Humpty Doo. The Administration carries out rice investigational work outside the coastal plains at the Upper Adelaide River Agricultural Experiment Station. At the rice research stations, it has been demonstrated that rice can be grown in the Territory, but that the main problems are adequate water control and drainage, determination of cultivation techniques in the soil conditions, and the production of suitable rice varieties. Territory Rice Limited, a firm with Australian and American capital, carried out commercial scale operations near Humpty Doo from the 1954–55 season until the 1959–60 season. Under arrangements with the company, four former employees grew rice crops in the 1960–61 and 1961–62 seasons.

On 25th July, 1959, the Minister for Territories appointed an expert committee to investigate the prospects of promoting agricultural settlement in the Northern Territory on an economic basis and the major factors to be considered in shaping an agricultural policy for the Territory, including the areas best suited to agricultural settlement; the crops most likely to prove economic; the relationship of agriculture to the expansion of the pastoral industry; the availability of land and the distribution and tenure of land; credit and other forms of assistance to primary producers; marketing opportunities; research and agricultural extension work; and water use and conservation. The committee has presented its report, and some of its recommendations have been accepted and implemented, while others are under consideration.

2. **Pastoral Industry.**—The pastoral possibilities of certain parts of the Territory were recognized at an early date, and both cattle and sheep raising have been attempted. For various reasons, sheep-raising has not been very successful, but the cattle industry has progressed steadily and is continuing to expand.

Cattle exported during 1961-62 numbered 134,901—83,866 to Queensland, 34,486 to South Australia, 9,955 to Western Australia and 6,594 to Hong Kong. Other livestock exports included 1,209 horses and 92 buffaloes. Imports of livestock were—bulls, 1,740, other cattle, 9,559; horses, 234; sheep, 4,716; pigs, 716; and poultry, 19,906.

The estimated numbers of livestock in the Territory at 30th June, 1958 to 1962, are given in the following table.

#### NORTHERN TERRITORY: LIVESTOCK

At 30th June—			Horses	Cattle	Sheep	Pigs	Goats	Mules
1958	..	..	38,668	1,243,588	26,795	3,071	9,938	324
1959	..	..	38,882	1,099,014	18,731	3,802	9,126	200
1960	..	..	38,340	1,110,520	14,960	4,400	9,440	318
1961	..	..	40,054	1,154,656	16,089	2,845	5,958	367
1962	..	..	40,809	1,063,866	13,900	3,400	4,949	195

3. **Hides and Skins.**—The numbers of hides and skins exported from the Territory during 1961-62 were as follows: sheep, 3,952; crocodile, 11,891; cattle, 5,896; and buffalo, 653.

4. **Mining.**—During 1961, the value of output of the mining industry in the Territory, excluding uranium mining, was £2,987,000.

The mining of copper ores and concentrates is the most important in terms of value of output, and accounts for more than two-thirds of the Territory's total recorded production. Prior to 1956, gold minerals, first mined in 1869, accounted for most of the value of output, but from 1956 onwards, gold production has remained relatively constant while copper production has increased considerably. The bulk of the copper and gold is won at Tennant Creek where, in 1958, the government battery was re-opened to encourage gold mining by smaller operators.

Although some overseas contracts held by uranium producers have recently terminated, the Northern Territory continues to produce about one-third of all uranium concentrate produced in Australia. In recent years, this output has come primarily from plants at Rum Jungle and in the South Alligator River area. Prospecting and survey programmes are being continued both by producing companies and by the Commonwealth Bureau of Mineral Resources. An important incidental outcome of this work was the discovery during 1962 of a large deposit of rock phosphate near Castlemaine Hill.

The Harts Range field in Central Australia continues to produce the bulk of Australian high grade mica, but production is declining because of the ready availability of lower priced mica from overseas. Production of wolfram concentrates, important in the past, is now negligible. Increasing interest is being shown in tin mining, and production is expanding.

The following table shows the value of output of the mining industry in the Territory for the years 1957 to 1961. Particulars of the value of output from quarries are not included.

#### NORTHERN TERRITORY: VALUE OF OUTPUT<sup>(a)</sup> OF THE MINING INDUSTRY (EXCLUDING URANIUM) (£'000)

Year			Copper ore and concentrate	Gold (b)	Manganese ore	Mica	Other	Total, all minerals
1957	..	..	1,024	973	20	50	59	2,126
1958	..	..	1,286	895	70	47	16	2,314
1959	..	..	1,455	901	37	45	33	2,471
1960	..	..	2,080	881	41	17	54	3,073
1961	..	..	2,063	895	1	1	27	2,987

(a) Selling value at point of sale of mine products less transport costs from mine to point of sale.

(b) Ore, concentrate, bullion, alluvial gold, etc.

5. **Forestry.**—In August, 1958, the Commonwealth Government approved a six-year programme of forestry improvement and development to preserve existing forest areas and increase possible timber resources. The programme is being carried out by the Forestry and Timber Bureau, and it is intended that it will be handed over to the Administration at the end of the six-year period. Fundamental forestry research work, however, will still be carried on by the Bureau. Experimental work in reforestation is being carried out in small plantation areas. Cypress pine appears the most promising species for large-scale commercial plantings. Local production of log timber, mainly cypress pine, amounted to 902,641 super. feet in 1960–61, but this was insufficient to meet local requirements, and about 2,500,000 super. feet of timber was imported from the States and overseas.

6. **Pearl Fisheries.**—In 1884, mother-of-pearl-shell was discovered in the harbour of Port Darwin. Since that time, the areas fished have extended to the various banks to seaward and coastwise along the Northern Territory coast. Figures for production and value of shell for the seasons ended January, 1958 to 1962, are shown in the following table.

NORTHERN TERRITORY: PEARL FISHING(a)

Season ended January—	Boats engaged	Pearl-shell taken	
		Quantity ('000 lb.)	Value (£'000)
1958.. .. .	11	753	135
1959.. .. .	5	314	57
1960.. .. .	5	188	36
1961.. .. .	5	222	45
1962.. .. .	3	147	29

(a) Excludes operations of Queensland and Japanese pearlers operating in Northern Territory waters.

7. **Secondary Industries.**—The secondary industries that have so far been established in the Territory have been largely the service industries normally associated with a developing area, for example, home building, electrical repairs, printing, motor and marine engineering, plumbing, welding, joinery, sheet metal work, and blue metal crushing. Major industrial investments by private interests in recent years include two breweries and a factory for the manufacture of milk, ice cream, and aerated waters. The total number of factories (i.e., establishments in which four or more persons are employed or where power—other than manual—is used in any manufacturing process) in 1960–61 was 122; the average number of employees, 953; the value of production (value added), £1,753,000; and the value of output, £3,149,000.

## § 6. Land Tenure

Almost half the land in the Territory is reserved or unoccupied and unreserved, the remainder, apart from a very small proportion alienated, being held under various forms of lease or licence, which are described in Official Year Book No. 48, pages 111–12, and in more detail in Official Year Book No. 39, pages 329–30. Chapter IV. Land Tenure and Settlement of this issue contains up-to-date statistical information concerning areas occupied under various forms of tenure.

## § 7. Trade, Transport and Communication

1. **Trade.**—No record is kept of the trade between the States and the Territory. The following table shows the values of the total direct oversea trade into and from the Northern Territory during the years 1957–58 to 1961–62.



## NORTHERN TERRITORY: OVERSEA TRADE

(£ )

Year						Imports	Exports
1957-58	..	..	..	..	..	1,088,697	655,617
1958-59	..	..	..	..	..	1,058,998	360,682
1959-60	..	..	..	..	..	1,484,791	551,199
1960-61	..	..	..	..	..	1,206,246	435,069
1961-62	..	..	..	..	..	2,084,216	611,722

2. **Shipping.**—Shipping services to Darwin are provided from the eastern States at intervals of about four weeks by ships of the Australian National Line, and from Western Australia by three to four ships a month of the Western Australian State Shipping Service. Oversea tankers visit Darwin approximately ten times annually with supplies of aircraft fuel and other petroleum products. Other oversea vessels call at irregular intervals. During 1961-62, approximately 180,000 tons of merchandise were landed at Darwin. A vessel operated from Thursday Island serves settlements on the Gulf of Carpentaria, and some mission-owned boats carry cargo from Darwin to mission stations and government settlements along the coast.

3. **Air Services.**—At 30th June, 1962, there were 15 government aerodromes and 104 licensed aerodromes in the Territory. The oversea passenger services using the Darwin international airport are Qantas (Sydney to Tokyo through Hong Kong); Qantas/B.O.A.C. (Sydney to London); Transports Aériens Intercontinentaux (Paris to Noumea and Au k-land); Air-India International (Sydney to London); and Cathay Pacific Airways Ltd. (Sydney to Tokyo). Qantas also conducts a freight service from Sydney to London. Regular inland services to Darwin, with, in some cases, intermediate stops at Territory centres, are operated by Trans-Australia Airlines (from Adelaide, Melbourne, Sydney and Brisbane), and MacRobertson-Miller Airways Ltd. (from Perth and Wyndham). A service from Melbourne to Alice Springs through Broken Hill is operated by Ansett-A.N.A. MacRobertson-Miller Airways Ltd., and Connellan Airways Ltd. operate a network of air services throughout the Territory, the latter company's base being at Alice Springs. The Royal Flying Doctor Service also operates aircraft, while charter services can be secured at Darwin and Alice Springs.

4. **Railways.**—The Commonwealth Railways Commissioner operates the Central Australia Railway from Port Augusta in South Australia to Alice Springs over a distance of more than 750 miles, of which about 200 are in the Northern Territory. The line from Port Augusta to Maree, a distance of 217 miles, has been converted to standard gauge. Proposals are now being examined to convert the remaining 3 ft. 6 in. line to standard gauge, firstly to Oodnadatta and later through to Alice Springs. The Commissioner also operates the North Australia Railway between Darwin and Birdum on a 3 ft. 6 in. gauge over a distance of 317 miles. The two inland terminals, Alice Springs and Birdum, are about 630 miles apart and are connected by road transport along the Stuart Highway. Larrimah, on the highway and 6 miles north of Birdum, is the point of trans-shipment for passengers and goods and is, at present, the effective terminal. A road-rail freight service operates between Adelaide and Darwin via Alice Springs.

5. **Roads.**—The Stuart Highway, 954 miles long, connects Alice Springs with Darwin and runs via Larrimah and Tennant Creek. The Barkly Highway, 403 miles long, connects Mount Isa (Queensland) with Tennant Creek and joins the Stuart Highway some 16 miles north of Tennant Creek. These highways are used for carrying various freights including cattle, particularly to and from the railheads at Alice Springs, Larrimah and Mount Isa. The routes are used also for overland tourists and travellers from the southern States to Darwin. With the further development of the pastoral and mining industries in the Territory, road trains are now being used on both highways for the export of cattle and ore. Both roads have good water bores and communications. There are now approximately 13,000 miles of road in the Territory of which 1,380 miles are sealed.

A comprehensive plan of beef cattle roads, estimated to cost £4,570,000, has been approved for construction over the next four years. Approximately 900 miles of new roads are involved, and the transport of cattle by road is expected to increase and result in an increased output of beef.

**6. Posts, Telegraphs, Telephones and Wireless.**—Postal communication is maintained by road, rail and air transport between Darwin and the capital cities of Australia. In addition, vessels belonging to the Western Australian State Shipping Service provide a regular service between Fremantle and Darwin. Inland, the northern part of the Territory receives its mail via Darwin or by means of the aerial services, and the southern districts are served via Adelaide.

The overland telegraph line, covering a length of 2,230 miles, runs from Adelaide to Darwin, and links Darwin in telegraphic communication with other parts of the world.

Long-distance telephone communication is established between Darwin and the capital cities of Australia, and oversea telephone communication through Sydney or Perth is also available.

Regional national broadcasting stations are situated at Darwin, Alice Springs, Tennant Creek and Katherine, and there is a commercial station at Darwin. The majority of homesteads on pastoral leases are equipped with pedal wireless sets operated under licence from the Postmaster-General's Department. These stations are in daily communication with Flying Doctor Bases situated at Alice Springs (Northern Territory), Wyndham (Western Australia), Broken Hill (New South Wales) and Cloncurry (Queensland), and are used for transmission of radio-telegrams and other communications.

## § 8. Education

**1. European.**—Schools for European and part-European children in the Territory are conducted for the Commonwealth, on an agreed basis of reimbursement, by the South Australian Department of Education, which is represented in Darwin by an Assistant Supervisor of Education, Northern Territory Schools.

At 30th June, 1961, there were 19 government schools in the Territory with 3,592 pupils, and three private schools with 838 pupils, providing instruction according to the South Australian curriculum. High schools with classes up to the Leaving Certificate level have been established at both Alice Springs and Darwin.

All children who live more than 10 miles from an established school receive an allowance of up to £140 (£80 plus £60 on a graduated scale according to family income) per annum plus fare concessions if they board away from home in order to attend school. Twelve exhibitions on the results of the Intermediate Certificate and twelve Leaving Honours scholarships on the results of the Leaving Certificate are available annually. Benefits are £50 and £100 respectively (plus up to £100 on a graduated scale according to family income) and return fares once a year.

Approximately 148 children receive correspondence education under the South Australian Correspondence School system. The radio session "School of the Air" supplements normal correspondence instruction for certain children in isolated areas.

Sixteen pre-school centres have been established in the Territory, three of which are on Government settlements, the staff of all except one being officers of the Northern Territory Administration. A number of scholarships are offered each year for Territory girls to qualify as pre-school teachers.

**2. Special Aboriginal Schools.**—The social, cultural, and educational background of the aboriginals has made necessary the establishment of special schools for them. It is envisaged that this necessity will ultimately pass. As from the beginning of the 1956 school year, control of these schools passed from the Commonwealth Office of Education to the Welfare Branch of the Administration. Sixteen schools have so far been established. A special syllabus and series of readers have been prepared for use in these schools. Free mid-day meals, milk, and school clothes are supplied to the pupils. In addition to the fourteen Administration schools, sixteen schools for aboriginal children are conducted by missions

with the aid of Government subsidies. Also, five schools aided by Government subsidies have been established on pastoral properties, and the establishment of others along similar lines is planned. Three pre-school centres are operated by the Administration for aboriginal children.

3. **Theoretical Training of Apprentices.**—The recognition that technical school training is an extension of workshop training has led to the introduction of day-time classes which apprentices attend without loss of pay. Apprentices are directed by the Apprentices Board to undertake correspondence courses conducted by the Technical Correspondence School of the South Australian Education Department and the Sydney Technical College, these courses covering the work prescribed for the various trades in South Australia and New South Wales.

### § 9. Aboriginal Welfare

The *Welfare Ordinance*, which came into operation on 13th May, 1957, established the principle that a person would be committed to the care of the State only on the grounds of his need for special care and assistance and not on the grounds of race or colour, and it laid on the Director of Welfare a positive responsibility for the advancement of wards in his care. *The Wards' Employment Ordinance* provides for the training of wards and assistance in establishing them in occupations, either on their own account or as employees. The Ordinance envisages, among other forms of training, apprenticeships for the better-educated wards and training on the job for those wards not yet capable of entering into apprenticeships. It also envisages financial aid to wards or groups of wards who, under the guidance of the Director, may be able to engage in activities (for example in agriculture, cattle raising, hunting or fishing) on their own behalf. The Director of Welfare is responsible for supervising employment for the wards in his care, and protective legislation for those in employment is retained. The legislation does not, of course, apply to any persons who are not wards, and aboriginals who have ceased to be wards will come within the normal industrial customs of the country.

### § 10. Finance

Details of revenue and expenditure of the Territory for the years 1957–58 to 1961–62 are shown below. The information given covers the transactions of the Commonwealth Consolidated Revenue Fund relating to the Northern Territory and the transactions of the North Australia Railway.

#### NORTHERN TERRITORY: REVENUE AND EXPENDITURE (£)

Item	1957–58	1958–59	1959–60	1960–61	1961–62
<b>REVENUE</b>					
<b>Taxation—</b>					
Probate and stamp duties ..	22,861	31,661	31,840	49,249	56,418
Motor registration ..	47,476	52,610	60,429	70,602	75,360
<i>Total</i> .. ..	<i>70,337</i>	<i>84,271</i>	<i>92,269</i>	<i>119,851</i>	<i>131,778</i>
<b>Business undertakings—</b>					
North Australia Railway ..	182,324	202,573	271,782	148,868	155,185
Electricity supply ..	418,482	448,536	532,915	573,875	687,252
<i>Total</i> .. ..	<i>600,806</i>	<i>651,109</i>	<i>804,697</i>	<i>722,743</i>	<i>842,437</i>
<b>Other—</b>					
Health .. ..	73,000	72,500	105,000	119,829	135,528
Rent and rates .. ..	278,342	341,894	394,651	418,299	502,560
Miscellaneous .. ..	348,161	349,761	406,535	627,913	543,208
<i>Total</i> .. ..	<i>699,503</i>	<i>764,155</i>	<i>906,186</i>	<i>1,166,041</i>	<i>1,181,296</i>
<b>Grand Total</b> ..	<b>1,370,646</b>	<b>1,499,535</b>	<b>1,803,152</b>	<b>2,008,635</b>	<b>2,155,511</b>

NORTHERN TERRITORY: REVENUE AND EXPENDITURE—*continued*

(£ )

Item	1957-58	1958-59	1959-60	1960-61	1961-62
EXPENDITURE					
Business undertakings—					
North Australia Railway ..	220,615	168,764	202,014	169,942	183,629
Electricity supply ..	288,633	335,769	363,378	351,020	401,215
Water supply ..	95,429	106,105	101,783	115,861	167,930
Hostels loss ..	29,468	38,000	42,738	18,000	14,000
<i>Total</i> ..	<i>634,145</i>	<i>648,638</i>	<i>709,913</i>	<i>654,823</i>	<i>766,774</i>
Social expenditure—					
Aboriginal affairs ..	684,308	719,695	979,984	965,227	1,011,983
Educational services ..	208,162	243,327	278,096	352,993	437,201
Public health, recreation and charitable ..	868,953	927,343	962,423	1,169,515	1,322,833
Law, order and public safety ..	92,914	103,984	118,831	123,735	129,860
<i>Total</i> ..	<i>1,854,337</i>	<i>1,994,349</i>	<i>2,339,334</i>	<i>2,611,470</i>	<i>2,901,877</i>
Capital works and services—					
North Australia Railway ..	85,595	44,712	22,533	44,639	12,973
Water supplies, roads, stock routes, etc. ..	377,218	500,395	386,583	509,516	751,580
Buildings, works, sites, etc. ..	2,416,750	2,638,159	2,705,798	2,967,054	4,015,773
Plant and equipment ..	322,665	212,164	322,440	348,552	1,013,264
Loans for housing ..	105,000	166,000	379,298	617,953	575,798
Loans for encouragement of primary production ..	53,589	71,244	10,038	23,315	23,863
Other ..	25,000	89,820	69,730	65,000	..
<i>Total</i> ..	<i>3,385,817</i>	<i>3,722,494</i>	<i>3,896,420</i>	<i>4,576,029</i>	<i>6,393,251</i>
All other—					
Territory administration ..	1,522,533	1,760,085	2,152,480	2,440,306	2,840,989
Developmental services ..	169,366	183,984	221,600	219,997	243,610
Municipal, sanitary and garbage services ..	209,969	190,260	223,632	206,710	228,900
Shipping subsidy ..	2,000	2,000	2,333	2,563	4,250
Railway freight subsidy ..	29,197	30,850	35,615	33,149	36,013
Airmail service subsidy ..	21,880	24,424	22,500	22,845	33,311
Rent, repairs and maintenance, n.e.i. ..	249,266	276,169	(a)837,021	(a)942,535	(a)885,408
<i>Total</i> ..	<i>2,204,211</i>	<i>2,467,772</i>	<i>3,495,181</i>	<i>3,868,105</i>	<i>4,272,481</i>
<i>Grand Total</i> ..	<i>8,078,510</i>	<i>8,833,253</i>	<i>10,440,848</i>	<i>11,710,427</i>	<i>14,334,383</i>

(a) Includes expenditure on Stuart and Barkly Highways: 1959-60, £499,900; 1960-61, £515,892; 1961-62, £499,997.

## THE AUSTRALIAN CAPITAL TERRITORY

## § 1. Canberra: Fifty Years of Development\*

1. *Canberra, the National Capital.*—Canberra, the National Capital, has made great progress in the fifty years since its foundation stone was laid on Capital Hill.

When the foundation stone was laid on 12th March, 1913, the site of the ceremony looked out over an empty plain.

Today, from the same point, broad avenues radiate to form two sides of a Parliamentary Triangle within which the buildings necessary to Canberra's identity and function as a National Capital have arisen. Multi-storey blocks of commercial buildings thrust into the skyline; institutional buildings are set in park-like surroundings, and residential suburbs spread across the plain and climb the slopes of the surrounding hills.

Canberra, at the beginning of 1963, had a population of nearly 70,000 people. It had become, in fifty years, the largest of Australia's inland cities. It had also, apart from physical growth, developed in character.

Today, Canberra as the National Capital has characteristics unique in Australia. The characteristics surprise visitors whose ideas about cities are based on the great commercial metropolis of Sydney or Melbourne. Canberra is the seat of Federal Government and an administrative centre rather than a commercial or industrial centre. Thus the most important part, which may be equated to the core of business houses in a conventional city, is the Parliament House and its supporting administrative buildings, established in landscaped surroundings. This park-like atmosphere emphasizes the difference in atmosphere between Canberra and other cities.

The concept of a national capital has been developed in many countries, and Canberra has been an example used by many emerging nations in the post-war period. National capitals are the visible symbols of national spirit and, in more practical terms, are the seats of government and centres of administrative and diplomatic activity. The newer national capitals are coming to be examples in urban development—vehicles for experiment from which other municipalities in each nation can learn.

2. *Early History.*—The building of the national capital is a duty imposed on Parliament by the Constitution. Commonwealth Parliament, after considering a number of possible sites, determined in 1908 that the seat of government of the Commonwealth should be in the district of Yass-Canberra and that it should contain an area of not less than 900 square miles and have access to the sea.

The Canberra district was first seen by white men less than 100 years before it was chosen as site for the Australian National Capital.

In 1820, Governor Macquarie instructed Charles Throsby, a former naval surgeon interested in exploration, to search for the Murrumbidgee River, which had been reported by aborigines. Throsby sent Wild, an experienced bushman, with a party of explorers which included his nephew, Charles Throsby Smith and James Vaughan, to search for the Murrumbidgee. On this journey, the party camped on the plain on which Canberra now stands, and reported favourably on the district on their return. In subsequent years, the country was opened up as grazing and farming land.

Following the choice of the Yass-Canberra district in 1908 as the future site of the national capital, the district Surveyor, Mr. Charles R. Scrivener, was directed to examine the area and recommend a suitable territory for the purposes of the Seat of Government. Scrivener nominated 1,015 square miles in the water sheds of the Cotter, Queanbeyan and Molonglo Rivers and a further 2,300 acres at Jervis Bay. A request for the surrender of the land was made to the New South Wales Government, and, after negotiation, an area of approximately 900 square miles between the Queanbeyan-Cooma Railway, and the mountain ranges forming the western boundary of the water shed of the Cotter River plus Jervis Bay was selected. The final step in the adoption of the actual site was taken by the passing of the *Seat of Government Acceptance Act* in 1909. The schedule of this Act contained an agreement between the Commonwealth and the State of New South Wales regarding the transfer to the Commonwealth of this area.

Control of the Territory was assumed by the Commonwealth on 1st January, 1911, when the *Seat of Government (Administration) Act* came into force.

\* The following article was specially prepared for this issue of the Year Book by the National Capital Development Commission, Canberra.

For many years subsequently, the site of Canberra, remote from the main Australian centres of commerce, removed from the sea, relatively isolated by mediocre transport facilities, remote from supplies of many basic materials and commodities, was subject to strong criticism. However, the tremendous post-1945 improvements in transportation facilities and the developing economic viability of Canberra have reduced these factors. Today Canberra is regarded as well placed between the major centres of Australian population and industry.

**3. Control of Land.**—With the transfer of the Territory from New South Wales on 1st January, 1911, all Crown land passed to the Commonwealth without cost, but privately owned land which the Commonwealth required had to be purchased from the owners. Much of the freehold land has been so acquired by the Commonwealth for the city site and for catchment areas. The remaining freehold land is principally in the southern portion of the Territory.

It was also provided that Commonwealth Crown land in the Territory, which includes that resumed from previous owners, should forever remain the property of the nation.

The decision to vest ownership of all land in the Crown was a very significant social experiment. The intention, since maintained, was that the Crown would continue to own the land, but would lease it for specified periods and under given conditions for residential, commercial, industrial and other purposes. The method of leasing is defined in the *Leases Ordinance 1918–1958*, the *Leases (Special Purposes) Ordinance 1925–1943* and the *City Area Leases Ordinance 1936–1959*. These lay down the method of disposal of the leases and indicate the conditions which will apply, the principal of which is the payment annually of a land rent based on a percentage of the unimproved capital value. The administration of the leasehold system represents a public investment, return from which in more recent years has been augmented by premiums paid at auctions for the right to the leases.

A principle rigidly followed since first establishment of the city has been that no land within the city area is offered for lease until all services—water, sewerage, power and roads—are provided.

**4. Canberra from 1911 to 1945.**—(i) *The City Plan.* In 1911, the site was a treeless and sparsely settled plain; improvements were few and had no bearing on the shape of the future city. The district population was 1,714 persons living on an area of grazing land, ringed by hills. The Molonglo River traversed the substantial plain, which was subject to recurring floods.

In April, 1911, an international competition for the design of the new city was launched. From 137 designs received, the first prize was awarded to Walter Burley Griffin, a Chicago architect.

Fundamental principles of the Griffin plan were:—

- (a) The geometric pattern of the design;
- (b) The treatment of the flood plain, useless for building purposes, to form a lake to be the unifying feature of the northern and southern parts of Canberra;
- (c) The formation of a grand visual axis from the top of Mount Ainslie to Capital Hill; and
- (d) The separation of national and municipal functions; this was proposed by the locating of all buildings associated with national affairs in an integrated group on the southern side of the lake and locating buildings associated with civic matters in a commanding position on the north side.

Residential suburbs were to be grouped on both sides of the river. Shopping facilities were to be provided in them only for local retail requirements, as the main commercial development was designed around the Civic Centre. The base point of the plan was Capital Hill from which main avenues were to radiate.

In time, Griffin made some changes in the original plan, but although this process of modification continues as the town planner grapples with problems that could not be foreseen in Griffin's day, the basic Griffin plan has been closely followed in the development of Canberra.

(ii) *The Naming of the National Capital.* On 12th March, 1913, an official ceremony marked the formality of establishing the Seat of Government. The Foundation Stone was laid on Capital Hill jointly by the Governor-General, Lord Denman, the Prime Minister, Rt. Hon. Andrew Fisher, and the Minister for Home Affairs, the Hon. King O'Malley.

At this ceremony, *Canberra* was announced as the name for the Capital City by Lady Denman.

(iii) *Early Progress.* In 1913, Griffin came to Australia to collaborate in the implementation of his design and was subsequently appointed by the Commonwealth Government to the position of Federal Capital Director of Design and Construction. In 1920, he resigned to set up in private architectural practice in Sydney.

Before the 1914 War, conditions brought activities almost to a halt, a power house was erected and a railway branch line from Queanbeyan was completed. The engine which pulled the first train into Canberra in 1914 is now on permanent display in the City. Brick works were established, the Cotter Dam to store water for the City was started, and the Royal Military College was established at Duntroon.

Between 1921 and 1923, work on engineering services proceeded and main and subsidiary roads were formed. Residential buildings were started and sites were allocated for hotels and guest houses. The Canberra to Queanbeyan railway was opened for passenger traffic in 1923.

The Commonwealth Parliament had met in the Exhibition Buildings in Melbourne since Federation, and it was during this post-war period that the temporary Parliament House and offices for government departments were begun in Canberra. The first assembly of the Commonwealth Parliament in its new buildings in Canberra was opened by His Royal Highness The Duke of York (afterwards His Majesty King George VI) in 1927.

(iv) *The Federal Capital Commission.* In July, 1924, the *Seat of Government (Administration) Act* was passed providing for a Commission of three to assume responsibility for Canberra's development. Although the Commission was invested with very wide powers in regard to actual constructional and developmental work, the Government made it clearly understood that the development must be along the lines of the Griffin Plan.

One of the advantages of the Federal Capital Commission was its relative freedom in regard to finance, and considerable progress was made with the transfer of Departments to Canberra for whose staff office accommodation and houses had to be provided. The following departments were involved in these transfers:—Prime Minister's, Treasury, Attorney-General's, Department of Home Affairs and Territories, Department of Trade and Customs, Department of Markets and Migration, and Secretariats for the Departments of Defence, Health and Postmaster-General's.

The pace of construction quickened between 1926 and 1928, and nearly 5,000 people were moved to Canberra. The Federal Capital Commission was directly responsible for local administration, but moves to give the citizens of the Territory a voice in local government resulted, in 1928, in the provision for the election of one of the members of the Federal Capital Commission by the residents of the Territory.

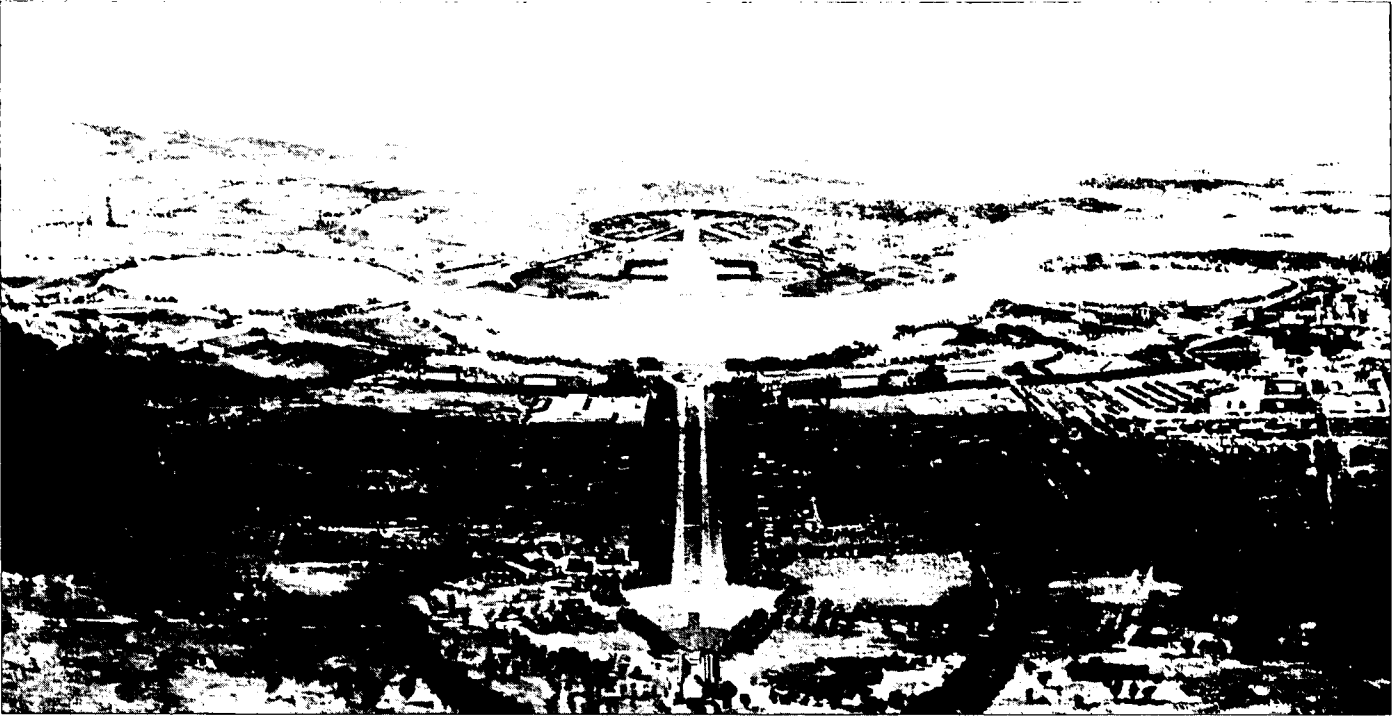
(v) *The Depression and the 1939–45 War.* With the onset of the economic depression there was mounting criticism, and in 1930 the Federal Capital Commission was abolished, and Canberra reverted to the departmental system of administration.

As the depression worsened, developmental work in the city was brought almost to a standstill, the only major construction during the period being the Federal Highway from Canberra to Goulburn.

As the economic situation improved again, approval was given for the building of the Australian War Memorial and a building for the National Library, the recommencement of the Administration Building (on which work had started in 1927), the construction of the Patents Office, and the commencement of a new hospital. The growth in the city's population, though less than expected, necessitated the building of more roads, schools and public utilities. Several defence service areas were established around Canberra, such as the Naval Wireless Stations at Harman and Belconnen, destined to play a dramatic part in the later war in the Pacific, and the Royal Australian Air Force Station in the Majura Valley.

By an amendment of the *Seat of Government (Acceptance) Act* in 1938, the Territory was named the Australian Capital Territory. In 1939, resources were diverted again to military purposes. House construction was restricted and transfers of Government Departments postponed.

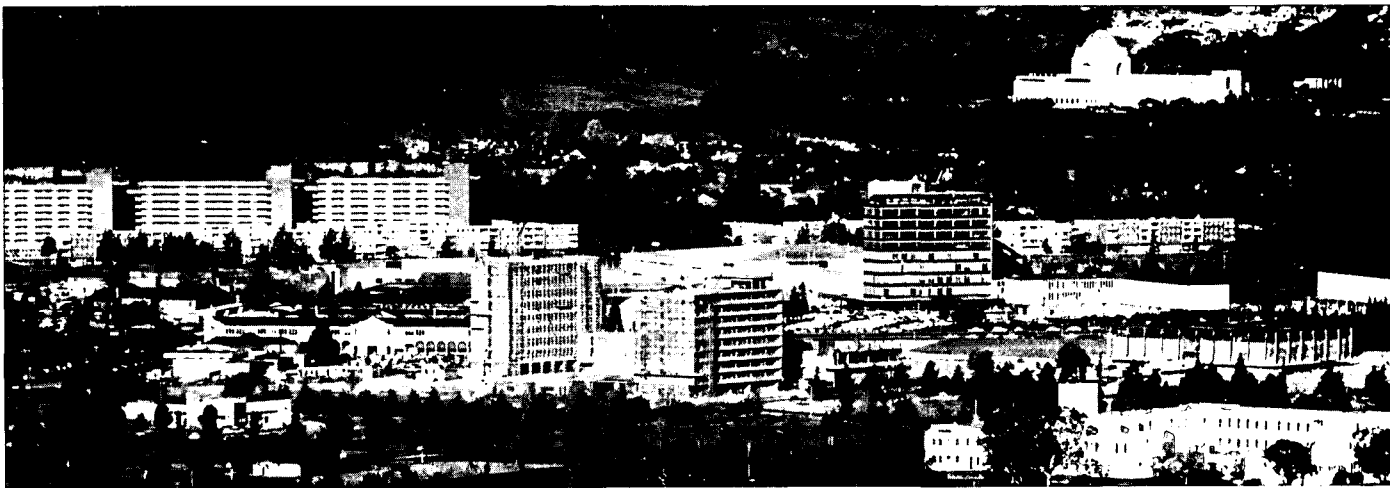
Thus, the establishment of the National Capital was not spectacular in its first 34 years between 1911 and 1945. Indeed, it is surprising that a firm base for future progress was established during that time in the face of opposition or indifference in some quarters, two World Wars and a substantial economic depression of long duration.



Artist's impression of Lake Burley Griffin, Canberra, looking from Mt. Ainslie to the apex of the Parliamentary Triangle. The original painting was by Lawrence Daws.

*Photograph by courtesy of Australian News and Information Bureau.*





**Civic Centre, Canberra, seen from Black Mountain. The Australian War Memorial is in the background, to the right.**

*Photograph by courtesy of Australian News and Information Bureau.*

An enduring achievement of these years was the establishment, on a vast scale, of landscaped and planted areas which furnished a mature background for the post-1945 developments.

(vi) *Diplomatic Representation.* Diplomatic activity was strengthened during the 1939-45 War. The United Kingdom (in 1936) and Canada (in 1939) were the only two overseas countries represented in Australia in the pre-war period. The first foreign diplomatic representative, the United States Minister, came to Australia in 1940. Japan sent a Minister in 1941, but his mission was terminated on the outbreak of war with Japan. (Diplomatic relations were resumed in 1953, with the appointment of an Ambassador.) During the War, missions were established by China in 1941, the Netherlands in 1942, New Zealand and the U.S.S.R. in 1943, and India and France in 1945. At the beginning of 1963, 32 overseas countries were represented in Canberra.

5. Canberra, 1946 to 1962.—(i) *General.* After the 1939-45 War, Canberra's development quickened, with the emphasis on suburban growth. Canberra's rapid increase in population aggravated the problem, and the lack of balance in development was expressed in the shortage of community halls, schools, suburban shops and other facilities.

It was now recognized that permanent buildings should be constructed when and where possible. Accordingly, the construction of the permanent Administration Block, started and stopped in 1927, was considered, in 1947, by the Public Works Committee, and subsequently work was resumed on a modified and improved plan.

In 1948, a scheme of transfer to Canberra of Commonwealth Departments, spread over a number of years, was formulated and approved by the Government. Shortages of labour and materials and the urgent need for house and hostel accommodation could operate against rapid expansion in the next few years, but the major probable cause of delay in implementing the scheme of transfers would be the absence of a single authority. A balanced authoritative policy to provide office accommodation, housing and amenities on an increasing scale was essential.

(ii) *Senate Select Committee.* In 1954, a Select Committee of the Senate was appointed to inquire into and report upon the development of Canberra. A principal recommendation in its September, 1955, report was that the divided departmental control should be replaced by a single authority, constituted by a Commissioner who would have wide powers in the planning and development of the National Capital. Subsequently, by Act of September, 1957, the National Capital Development Commission was established. The work of administering the city remained with the Department of the Interior, and routine maintenance remained with the Department of Works as agent of the Department of the Interior.

In the period between the legal and the effective establishment of the Development Commission, a very significant report offering observations on the future development of Canberra was made by Sir William Holford, the eminent English architect and town planner, at the request of the Commonwealth Government. Holford's interest in, and association with, the development of Canberra were to continue strongly in the future operations of the Commission.

(iii) *The National Capital Development Commission.* The National Capital Development Commission was appointed on 1st March, 1958, and is responsible for the planning, development and construction of the City. The Commission has under its control funds appropriated annually by Parliament. In detailed planning and construction, it uses both private and government agents, principally the Commonwealth Department of Works. It maintains liaison with, and seeks technical advice of the highest order from, Commonwealth and State governmental agencies; it also engages specialist consultants within Australia and overseas. When a construction project is completed, it is handed over by the Commission to the Department which required it, generally the Department of the Interior as the administrative authority.

The Act which established a Development Commission also provided for a National Capital Planning Committee to advise the Commission as to the planning, development and construction of the City of Canberra. The Committee includes the Development Commissioner as Chairman, two architects, two engineers, two town planners and two other persons with special knowledge and experience in artistic or cultural matters. In practice, the Committee has met about eight times each year to review all the major issues in planning and development under reference from the Commission.

Through its land use authority, the Commission co-ordinates the building programmes of private enterprise and government.

In terms of planning and development, one of the most significant and active responsibilities of the Commission is the close control over the design and siting of all buildings and associated structures. The harmony of design, colour, and materials within the context of the surrounding buildings is carefully studied and assessed, and all approvals to the erection of buildings for particular purposes take into account their acceptability in terms of traffic generation, noise, smoke or other nuisance, and the effect on the general amenity of the particular area.

Between 1923 and 1958, when the National Capital Development Commission was appointed, the plan of Canberra remained virtually unchanged, except for variations affecting the Lakes Scheme and some minor alterations in the design of residential streets. Meanwhile, however, the local scene had changed considerably, and many technical developments had occurred which greatly influenced the theory and practice of town planning. Thus, a first task of the Commission was to review the adequacy of the Statutory Plan, to decide whether it could provide the satisfactory basis for future development, and what changes, if any, were necessary to bring it into line with present-day needs.

By 1959, some 46 years after the commemoration stone was laid, the population had reached 44,000, and about one-third of the gazetted areas on the Statutory Plan had been developed and the outlines of the Central Area were firmly established on the ground. As noted above, the specific achievement in the development of the city area in the earlier years of Canberra was the transformation of a treeless valley into an effective urban landscape; the vigour and enthusiasm shown in the early planting programmes are responsible in a very large degree for the city's present attraction. By 1959, over two million trees had been planted in Canberra.

The new Commission early endorsed the view that Canberra must have features to distinguish it from other cities, and that these features could emerge from the existence in the heart of Canberra of a large park-like landscape, bounded on the three sides by King's Avenue, Commonwealth Avenue and Constitution Avenue, identified as the Central Area, in which should be situated the major buildings housing the several arms of Government. It was considered that on the design of this landscape, the vistas it afforded, and the relationship of groups of buildings, the success of Canberra as a city of world standing would depend. Also recognized was the need to extend and develop important buildings and employment opportunities. The further consideration, fundamental in planning the city, was the recognition that Canberra was essentially a garden city helping to establish an expansive tradition in urban living.

The Commission in 1959 formulated comprehensive proposals for the development of the city over the next five years. The proposals covered the identification of new residential areas, the commercial and industrial locations, and ideas in connexion with the planning of the Central Area. Since then, planning has expanded to cope with a probable ultimate growth to 500,000 persons, and takes account of a possibility far in excess of that number.

It was also recommended to the Government that the Canberra lake, an essential feature of the original concept, should proceed. These proposals were approved by the Government. As well as being a simple and decorative feature in itself, the lake was also a fundamental requirement for the integrated growth of the approved city, as the recurring flooding of the Molonglo flood plain made it unsuitable for building sites.

The Lake Scheme is estimated to cost some £2.5 million spread over a period of five years, and it is expected that the major lake construction works will be completed by the end of 1963. Full development of the landscape around the lake margins is, however, expected to take much longer. When completed, the lake will be some 22 miles in circumference, almost 7 miles long, and have 1,748 acres of surface area. The depth will range from 7 feet to about 54 feet at the dam wall. One thousand acres of parkland will surround the lake and will be retained for public use. Sites will be provided for such activities as yachting, sculling and rowing. Traffic will cross the lake by the King's Avenue and Commonwealth Avenue Bridges. Each is in the form of twin bridges having dual one-way carriageways; the King's Avenue Bridge has four traffic lanes and the Commonwealth Avenue Bridge will have six.

Fittingly, the lake has been called after the man whose plan was responsible for its creation—Walter Burley Griffin.

(iv) *The Joint Parliamentary Committee on the Australian Capital Territory.* In February, 1959, the Commonwealth Parliament, recognizing the merit of maintaining some close association with all the issues of development, established a Joint Committee consisting of nine Senators and members representing both Houses to study such matters concerning the

Australian Capital Territory as the Minister from time to time might refer to it. Since inception, the Committee has been active, particularly in the continuing study of the Statutory Plan of Canberra and of the tourist industry.

(v) *Major Works.* (a) *Building Operations.* Among the major building operations put in hand in the period 1958 to 1962, the following are worthy of special mention.

*The Russell Office Group*, intended to accommodate the Defence and Armed Service Departments. The first four office buildings and an Electronic Data Processing building have been completed and three more buildings are under construction.

*Australian Capital Territory Court House.*

*Canberra Technical College*, particularly the Schools of Commerce, Engineering and Building.

*Civic Offices and City Square.* Associated with this project was the pool, fountain and the statue of Ethos, executed by an Australian sculptor Mr. Tom Bass.

*Tariff Board Headquarters.*

*Australian National Mint.* Following the decision of the Government to establish the Australian National Mint in the National Capital, site works commenced in 1962 in the Yarralumla Creek Valley and building construction will be undertaken during 1963. This will be the first major Government building to be constructed in this new district.

*Civic Auditorium.*

*Secretariat Building* in the Parliamentary Triangle.

*Bureau of Mineral Resources Building* on the lake shore opposite Parliament House.

*Housing.* Between 1958-59 and 1961-62, 3,219 houses and 1,223 flats were constructed, using government funds (during the same period 1,559 houses and 52 flats were constructed by private enterprise).

*Education.* High schools have been constructed at Lyneham, Narrabundah and Dickson, and primary and infants' schools completed at Downer, Red Hill and Campbell.

*National Library of Australia.* Planning is well advanced for the construction, on the lake shore adjacent to Parliament House, of a major building to house the National Library of Australia.

There has been a notable growth in the Australian National University as a centre of learning and research. This is dealt with separately in Chapter XV of this Year Book under the section on Universities.

(b) *Engineering Works.* The growth of population by 50,000 persons in the City area between 1945 and 1963 and an expected growth to 100,000 persons by 1969 has meant heavy expenditure on roads, water supply and sewerage systems to meet the demand for new residential areas. New suburbs of Dickson, Hackett and Watson are being developed, and a new district in the Yarralumla Creek Valley planned to cater for an ultimate district population of 60,000 persons. The first residences in this district will be occupied during 1963.

Augmentation of the original water storage constructed on the Cotter River in 1915 has been necessary. In 1951, extensions to the Cotter Dam wall were completed to increase the storage capacity from 375 million gallons to 950 million gallons, and a second storage, Bendora Dam, of almost 2,500 million gallons capacity, on the higher reaches of the Cotter River, was completed in 1961. A third storage dam site is currently being investigated.

(vi) *Transportation.* Canberra is a highly motorized community and advantage has been taken of the unique situation existing in the young and rapidly growing city to plan for future traffic movement to avoid the problems which beset older cities.

The assembly of traffic data such as volume counts, parking surveys, and accident studies has been a continuing process, and during 1961-62 an extensive origin-destination traffic survey was undertaken. This has provided basic material for a major transportation study, undertaken by overseas consultants, to assess the requirements of the city developed in stages to a population of 250,000 people. As a result, a system of arterial, distributor and subsidiary roads is designed to meet growing traffic requirements.

As in other aspects of Canberra development, landscaping is integrated with major traffic ways. One of the more recent examples of this is the Parkes Way, a dual carriage roadway which defines the third side of the triangular Central Area, and which will skirt the northern side of Lake Burley Griffin.

Public transport within the city area is provided by a fleet of modern omnibuses operated by the Department of the Interior. Regular rail, road and air services connect the city with the cities of Melbourne and Sydney.

(vii) *Neighbourhood Planning.* The Commission seeks, in its land use planning, to make Canberra a good city in which to live. It attempts to set a model for effective, efficient neighbourhood planning based on three principles—convenience, safety and pleasantness.

Neighbourhoods, each planned to be bounded and traversed by parklands, are normally designed to accommodate 4,000 to 5,000 persons in an area of about 400 acres. Community facilities are to be located at the centre of the neighbourhood, offering convenience of access to everybody living in the area. Provision is made for denominational schools, churches, special purpose halls, clubs, sports ovals and neighbourhood recreation reserves.

The designs seek to achieve pleasant aspects for residential sites. Roads will run with the contours in undulating sites. The preservation of views, provision for water drainage, and protection from prevailing winds, are sought, and the topography is studied to meet the convenience of pedestrians. The intention is to give a sense of compactness and unity to the neighbourhood.

Each neighbourhood will be serviced by one or two distributor roads which will lead traffic to the arterial roads connecting to the main business areas. Road patterns in the neighbourhoods will discourage indiscriminate through traffic but offer convenience to the driver, while inhibiting speed, in moving to the major traffic ways.

Pleasantness is sought through attention to open areas. The feeling of spaciousness is influenced by road widths varying from 20 feet to 34 feet, by verges varying between 15 feet and 18 feet, and a building line set back about 25 feet from the property line. Residential block sizes vary in size between eight and ten thousand square feet.

The Commission has recently endorsed an experiment in design, based on the Radburn system, for one of the new neighbourhoods in the Yarralumla Creek Valley. This will further emphasize convenience, safety and pleasantness. The feature of the Radburn system is that all the houses face pedestrian parkways with road access to the backs of houses instead of to the front.

(viii) *Private Enterprise Development.* Since 1959, there has been increasing participation by the private enterprise sector in the development of the City. The increasing investment of private funds in retail, housing and other commercial development was exemplified by the completion of seven commercial office blocks, one £2 million retail shopping block and another large retail group in the business centre of the city, and one luxury hotel and four substantial motels in other parts of the city. Private house completions rose steadily from 176 in 1957–58 to 703 in 1961–62.

6. *Canberra Today.*—(i) *Canberra as a Centre of Research.* The philosophy behind Canberra today is that it should develop as something wider than merely the Seat of Government and the centre of administrative activity. The establishment of the Australian National University and its very substantial growth since 1953 have fostered the growth of Canberra as a centre of learning and post-graduate study, and are providing an atmosphere in which important political, social and philosophical concepts can be examined. The University has engaged in research work of international importance in such fields as physics, chemistry, medicine, astronomy, international relations, etc.

The Commonwealth Scientific and Industrial Research Organization has also established very substantial research facilities in Canberra through the years, and this has given an opportunity to flavour and characterize the City, strengthening its growing claims as a centre of Australian research. Other groups, including the Bureau of Mineral Resources and the National Health Standard Laboratories, are contributing to this development.

(ii) *Education System.* Following the transfer of the territory to the Commonwealth, the New South Wales Education Department agreed to a request to continue the task of educating children in the Australian Capital Territory under an arrangement by which the Commonwealth reimbursed the New South Wales Education Department for the costs incurred. This covers staffing, inspection, curricula and examinations. The Department of the Interior has the responsibility for school buildings and equipment.

School enrolments today total 16,000 or 24 per cent. of the population. Approximately one-third of the pupils attend non-government schools. With the rapid migration of families to Canberra, secondary school enrolments are increasing faster than the population growth.

(iii) *Cultural Growth.* In its formative years, when the minimum facilities for commercial entertainment were available, Canberra was thrown heavily on its own resources. The tradition of neighbourhood entertainment then developed has been carried on, and today finds expression in several active repertory groups and artists groups, an amateur orchestra, a philharmonic society and a choral society, and in the wide range of associations pursuing intellectual activities such as chess and the study of languages.

For many years, the Albert Hall seating approximately 750 persons has been the only concert hall available to Canberra. Its drawbacks of a flat auditorium floor and inadequate stage facilities have inhibited its usefulness at a time when there has been generally in Australia a tremendous resurgence in the theatre and music. Since 1958, provision of well equipped assembly halls at several of the major high schools has materially helped the arts accommodation problem, and it is expected that the difficulty will be solved for some years to come by provision of the Civic Centre Auditorium which will accommodate about 1,200 in a fully professional atmosphere.

Canberra people have developed a special tradition in community activity, and there are very strong groups representing such organizations as the Y.M.C.A., Y.W.C.A., Scouts and Guides.

The existence of the Australian National University and such groups as the C.S.I.R.O. has led to the encouragement of public lectures, addresses, and presentation of illustrated materials not experienced on a relative scale elsewhere in Australia. In general, these meetings are open to the public, and they increase the depth and range of entertainment available.

On the lighter side, Canberra's population of 70,000 enjoys three motion picture theatres, two swimming pools, two bowling alleys, two squash courts, three golf courses, and widely distributed cricket and football fields, tennis courts, and basketball courts. There are facilities for horse riding and excellent opportunities for day-long trips into the surrounding rugged country.

Increasingly, Canberra is becoming known as a convention centre. It has a wide range of motels and hotels with standards ranging up to the luxurious, and with its variety of possible meeting halls and study areas together with its many points of interest affords excellent opportunities for conferences.

As the National Capital, and because of its unique characteristics, Canberra has developed as a substantial tourist attraction. It has been estimated that up to 500,000 people visit Canberra annually, and there is reason to suppose that as the national features become more defined the tourist trade will grow into a very substantial basic industry. The seasons offer brilliant colour contrasts, aided by the extensive use of exotic deciduous trees, the adjacent mountains offer picturesque scenery, and the river systems give excellent swimming and good fishing. With the completion of Lake Burley Griffin and development of its facilities for aquatic entertainment, Canberra could well become one of the most important tourist centres in Australia.

(iv) *Government Office Establishments.* By the beginning of 1963, 25 Commonwealth Departments were either fully established or represented in Canberra and employing 10,600 people.

In addition, Statutory Authorities such as the Tariff Board, the Australian National University, the National Capital Development Commission and sections of the C.S.I.R.O. were operating in the National Capital.

(v) *Australian Capital Territory Advisory Council.* The Advisory Council, established under the *Advisory Council Ordinance* 1936-1957, originally consisted of nominated members (one from Health Department, two from Department of the Interior and one from Works Department) and five members elected by citizens of the Australian Capital Territory. The members elected their own Chairman and were expected to meet at least once a month. The Council could advise the Minister for the Interior in relation to any matter affecting the Territory, including the making of new Ordinances, and the repeal or amendment of existing Ordinances; the Minister could refer to the Council any matter on which he desired the advice of the Council. The Council had power to request the attendance of any Commonwealth public servant to assist it. The functions of the Council are purely advisory.

In February, 1959, the Council recommended an increase in the number of elected members to eight and of nominated members to five, the additional nominated member to be from the National Capital Development Commission. However, it was decided that while the Commission would be represented by an Associate Commissioner at meetings when attendance was appropriate, it was not necessary to appoint a representative of the Commission to the Council.

7. **Conclusion.**—Vast changes have taken place in the face of Canberra in the last fifty years, indicative of the planning that has gone into the development of this city and caused such changes in the skyline.

These convey some idea of what progress has been made towards implementing the directive issued by the then Minister to the district surveyor in his search for a site for a capital in 1908, namely that he must bear in mind "the Federal Capital should be a beautiful city occupying a commanding position, with extensive views and embracing distinctive features which will lend themselves to the evolution of a design worthy of the object, not only for the present but for all time".

It was primarily to participate in the celebrations to mark the 50th Anniversary of the naming of Canberra that Her Majesty Queen Elizabeth II and His Royal Highness the Duke of Edinburgh made their visit to Australia in February and March, 1963.

## § 2. Population, Works and Services

1. **Population.**—From 1911 until 1921, the population of the Australian Capital Territory remained at about 2,000 persons. In 1922, it commenced to rise, and by 1927 was nearing 6,000. The following year, with the transfer of departments from Melbourne, it passed 8,000.

Little growth was made thereafter until the later 'thirties, and at the outbreak of the 1939–45 War the population had reached just under 13,000 persons. During the war, growth was again slow, and at the Census of 30th June, 1947, the population was 16,905 persons. Subsequently, the population showed steady increases and at the Census of 30th June, 1954, it was 30,315 persons. With further transfers of departments from Melbourne, the population reached 58,828 persons (including 527 in Jervis Bay) at the Census of 30th June, 1961. At 30th September, 1962, the population of the Territory was 67,308, made up of 64,929 in Canberra City and 2,379 in the rural districts (including 526 at Jervis Bay).

2. **Progress of Works.**—(i) *National Capital Development Commission* (see also § 1. Canberra, Fifty Years of Development, p. 127). *The National Capital Development Commission Act 1957–1960* provides for a Commission to undertake and carry out the planning, development and construction of the City of Canberra as the National Capital of the Commonwealth. The year 1961–62 was the fourth year of the Commission's operations. Construction work was carried out by means of agency arrangements with the Department of Works and private consultants.

Details of the expenditure by the Commission during each of the four years of its operations are as follows.

### NATIONAL CAPITAL DEVELOPMENT COMMISSION: EXPENDITURE (£'000)

Item	1958–59	1959–60	1960–61	1961–62
Housing and flats .. .. .	5,836	4,617	3,527	3,248
Education .. .. .	635	1,036	1,501	1,103
Commonwealth Administration .. .. .	528	738	1,391	1,119
Other Architectural Projects .. .. .	216	677	466	458
Engineering Services .. .. .	1,952	3,050	3,312	4,088
Minor Works .. .. .	170	197	255	265
Fees and Charges .. .. .	645	731	635	730
<b>Total .. .. .</b>	<b>9,982</b>	<b>11,046</b>	<b>10,987</b>	<b>11,011</b>

(ii) *Department of Works.* Apart from the work it carries out for the National Capital Development Commission, the Department of Works acts as design and supervision agent for other Commonwealth departments and instrumentalities. Total expenditure during 1961–62 on all operations amounted to £4,122,927, compared with £3,077,699 in 1960–61. Major items in 1961–62 were:—Building Works—Housing, £11,451, Other Building, £2,325,767; Engineering Works, £111,297; Repairs and Maintenance—Building, £722,122, Engineering, £817,705; Purchase of Plant, £134,585.

3. **Transport and Communication.**—Canberra is connected with the railway system of New South Wales at Queanbeyan by a line  $4\frac{1}{2}$  miles long. This line was opened for goods traffic on 25th May, 1914, and for passenger traffic on 15th October, 1923. Direct or linking services operate between Canberra and Sydney and Canberra and Melbourne.

Two airlines provide several services daily each way on the Sydney—Canberra—Melbourne route.

Regular motor-coach services link Canberra with towns in New South Wales, Victoria and South Australia.

There are three radio broadcasting stations in the Territory, 2CY and 2CN of the national broadcasting system, and 2CA, a commercial station, and two television stations, ABC Channel 3 of the national broadcasting system, and CTC Channel 7, a commercial station.

4. **Education, Health and Justice.**—The *Australian Capital Territory Education Ordinance* provides for the compulsory attendance at school of children between the ages of six and fifteen years. The Commonwealth Department of the Interior is primarily responsible for the education of children in the Australian Capital Territory. By agreement, however, the New South Wales Department of Education arranges the teaching programme in accordance with its own curriculum and provides the teaching staff. It is reimbursed for expenses incurred.

At 31st December, 1962, there were three public secondary schools in Canberra providing courses to the Leaving Certificate standard—Canberra High School, Telopea Park High School, and Lyneham High School, and two which will annually extend their courses, reaching the Leaving Certificate standard by 1964 and 1965 respectively—Narrabundah High School and Dickson High School. Seventeen schools provided courses for children in infants and primary classes, including two in the Jervis Bay area and three in rural districts. There were also a school for mentally handicapped children; a therapy clinic for children suffering from speech defects; a clinic for educational guidance; and a class for deaf children.

At the same date, there were fourteen private schools in Canberra. Of these, St. Edmund's Christian Brothers' College, the Catholic Girls' High School, the Canberra Grammar School (Boys), and the Canberra Church of England Girls' Grammar School provide courses leading to the Leaving Certificate Examination. A fifth private secondary school, Daramalan College, will annually extend its courses to reach Leaving Certificate standard in 1966.

Twenty-two pre-school centres, including an occasional care centre and a mobile unit which visits outlying areas, provide pre-school facilities for approximately 1,800 children between the ages of three and five years.

The Canberra Technical College, which follows the curriculum set by the New South Wales Technical Education Department, provides trades courses for apprentices; vocational (non-trades) courses including accountancy, women's handicrafts, and sheep and wool courses; hobbies courses including ceramics, dressmaking, art, woodwork and motor maintenance; and courses for Commonwealth authorities. In addition, the Technical College undertakes the trade testing of migrants seeking to enter skilled trades.

An area of about 250 acres has been set aside at Acton for the Australian National University. Provision has been made for the University to establish such research schools as may be thought desirable, including a School of Medical Research, and Research Schools of Physical Sciences, Social Sciences and Pacific Studies. Provision for undergraduate studies and some post-graduate study is made by the School of General Studies.

Further reference to education in the Australian Capital Territory appears in Chapter XVIII—Education, Cultural Activities and Research.

The Canberra Community Hospital serves the population of Canberra and surrounding districts. At 30th June, 1961, it had 258 beds, an honorary medical staff of 78, 5 salaried medical staff, and a nursing staff of 258. Extensions are being made to the hospital to enable it to cope better with the needs of Canberra's growing population. For further information see Chapter XVII. Public Health.

The Australian Capital Territory has a Supreme Court and a Court of Petty Sessions. There is an Australian Capital Territory Police Force, which at the end of 1960–61 numbered 89, including two policewomen.



### § 3. Production

1. **Lands.**—Reference has been made in previous issues of the Official Year Book to the general conditions of land tenure in the Territory and to the area of alienated and leased land, and Chapter IV. Land Tenure and Settlement of this issue contains statistical information on the subject. (See also § 1. Canberra, Fifty Years of Development, p. 123.)

Under the *Seat of Government (Administration) Act* 1910, Crown lands in the Territory may not be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of the Act. Leases of land in the city area are granted under the *City Area Leases Ordinance* 1936–1961, and leases of other lands under the *Leases Ordinance* 1918–1958. Land is also leased for various purposes in the city area under the *Church Lands Leases Ordinance* 1924–1932 and the *Leases (Special Purposes) Ordinance* 1925–1943, while one lease under the *Church of England Lands Ordinance* 1926 has been granted for church purposes. As considerable portions of the Territory lands are not immediately required in connexion with the establishment of the city, large areas have been leased for agricultural or grazing purposes.

The Commonwealth acquired from the State of New South Wales sovereign rights over the area comprising about 28 square miles of land and water at Jervis Bay for possible use as a port in connexion with the Australian Capital Territory. The Royal Australian Naval College is situated in this area. Some 5,000 acres of land in the area, mostly of little value agriculturally, are used for grazing purposes. The natural forest is being utilized for the production of hardwood building material and the area treated is being reforested with softwoods on an experimental basis.

2. **Forestry.**—A considerable amount of reafforestation work has been undertaken, and plantations (mainly *Pinus radiata*) have been established at Uriarra, Mount Stromlo, Pierce's Creek, Green Hills and Kowen. Experimental plots have been established in the Brindabella mountains and soil conservation areas at various locations throughout the Territory.

The total area of softwood plantations at 30th June, 1962, was 25,594 acres, of which 23,404 acres were *Pinus radiata*, the balance consisting of other softwood species, chiefly *Pinus ponderosa* and *Pinus nigra*, and 273 acres of experimental planting at Jervis Bay, mainly *Pinus radiata* and *Pinus eliottii*.

Forestry operations in the Territory were begun on Mount Stromlo in 1915. Plantings up to 1925 were chiefly on decorative lines, but since then a much wider programme has been undertaken. Sawmill timber is now being obtained, mainly from thinning operations. The yearly output of pine logs has increased from 2,500 cubic feet in 1930–31 to about one million cubic feet at the present time, the total amount cut to date being about 15.4 million cubic feet. The present output consists of approximately 50 per cent. logs yielding building material, and 50 per cent. case-making material.

In 1926, a comprehensive review was undertaken of the Territory's potentialities for forest development. The existing forest area has been placed under management and a considerable amount of survey and assessment work has been completed, resulting in the extension of operations, including fire protection, to 100,000 acres of hardwood forests in the Cotter catchment area. Hardwood log production during 1962 was 154,000 cubic feet, all of which was used in building operations in Canberra. The total amount of hardwood cut from Australian Capital Territory forests to date is about 3,854,000 cubic feet and completes exploitation in the area.

3. **Production.**—During 1961–62, the production of the more important items of the agricultural and pastoral industry was—Wheat, 32,000 bushels; wool, 2,645,000 lb.; whole milk, 1,136,000 gallons; meat (carcass weight, fresh), 3,390 tons. The numbers of livestock depastured at 31st March, 1962, were—Horses, 699; cattle, 14,169; sheep, 286,214; and pigs, 184.

As in the Northern Territory, the secondary industries established in the Australian Capital Territory are largely the service industries associated with the growth of the Territory. For the year 1960–61, factories (i.e. establishments in which four or more persons are employed or where power—other than manual—is used in any manufacturing process) numbered 123; the average number of employees was 2,093; the value of production (value added) was £3,550,000; and the value of output, £6,116,000.

## § 4. Finance

Details of revenue and expenditure for the years 1957-58 to 1961-62 as recorded in the Commonwealth Consolidated Revenue Fund are given in the following table. Public debt charges allocated to Australian Capital Territory operations, formerly included in the table on expenditure, have now been excluded, as this allocation is no longer made. Consequent on the merging of the Canberra University College with the Australian National University, expenditure figures relative to the former institution included for years prior to 1961-62 have been excluded, since expenditure on the latter institution is not regarded as territorial expenditure.

## AUSTRALIAN CAPITAL TERRITORY: REVENUE AND EXPENDITURE

(£ )

Item	1957-58	1958-59	1959-60	1960-61	1961-62
REVENUE					
Taxation—					
Motor registration .. ..	101,695	121,567	143,884	161,421	185,297
Liquor .. ..	30,985	39,783	47,534	52,048	55,707
Rates .. ..	103,605	100,554	173,540	176,912	204,122
Other .. ..	1,938	3,082	2,091	2,316	2,542
<i>Total</i> .. ..	<i>238,223</i>	<i>264,986</i>	<i>367,049</i>	<i>392,697</i>	<i>447,668</i>
Business undertakings(a)—					
Railways .. ..	18,532	46,287	25,115	41,763	58,973
Abattoirs .. ..	35,654	44,662	33,498	34,884	39,225
<i>Total</i> .. ..	<i>54,186</i>	<i>90,949</i>	<i>58,613</i>	<i>76,647</i>	<i>98,198</i>
Rent—					
Housing .. ..	691,455	822,743	1,052,792	1,185,673	1,584,078
Land .. ..	223,917	159,553	214,920	259,986	278,079
Miscellaneous .. ..	11,313	11,384	17,146	25,217	33,326
<i>Total</i> .. ..	<i>926,685</i>	<i>993,680</i>	<i>1,284,858</i>	<i>1,470,876</i>	<i>1,895,483</i>
Fees for services, fines .. ..	80,781	95,923	136,615	245,012	286,894
Sale of houses—mortgages and cash sales .. ..	324,337	314,795	309,586	424,225	687,292
Other(b) .. ..	105,509	233,087	634,854	1,144,236	638,197
<i>Grand Total</i> .. ..	<i>1,729,721</i>	<i>1,993,420</i>	<i>2,791,575</i>	<i>3,753,693</i>	<i>4,053,732</i>
EXPENDITURE					
Business undertakings(a)(c)—					
Railways .. ..	49,750	49,897	52,448	58,500	60,544
Water supply and sewerage .. ..	222,415	231,860	254,884	328,109	372,233
Abattoirs .. ..	30,829	33,170	32,010	35,698	35,629
Transport services(d) .. ..	72,000	62,000	62,000	60,000	62,000
Hostels(e) .. ..	37,337	32,254	..	..	..
Other .. ..	..	586	..	10,359	..
<i>Total</i> .. ..	<i>412,331</i>	<i>409,767</i>	<i>401,342</i>	<i>492,666</i>	<i>530,406</i>

NOTE.—For notes see end of table, page 136.

## AUSTRALIAN CAPITAL TERRITORY: REVENUE AND EXPENDITURE

—continued

(£ )

Item	1957-58	1958-59	1959-60	1960-61	1961-62
EXPENDITURE—continued					
Social expenditure(c)—					
Education—					
Primary and secondary .. ..	441,321	519,732	601,130	805,795	936,106
Technical college .. ..	52,809	56,115	68,719	75,687	84,545
University scholarships .. ..	6,900	7,600	11,000	10,723	13,756
Art, community activities, etc. . .	6,263	7,906	8,445	23,419	16,632
Nursery schools and pre-school centres .. ..	29,067	30,175	32,861	38,196	49,483
Public health and recreation .. ..	113,492	127,124	132,261	160,926	187,426
Charitable—					
Hospital—general .. ..	298,669	356,819	396,250	408,800	457,400
Relief of aged, indigent, etc. .. ..	4,166	4,687	5,102	12,485	13,672
Other .. ..	28,899	64,749	38,674	51,805	51,271
Law, order and public safety—					
Justice .. ..	34,675	38,570	45,942	53,428	67,404
Police .. ..	142,462	137,894	168,952	197,275	215,921
Public safety .. ..	34,376	63,834	68,523	79,880	92,395
Total .. ..	1,193,099	1,415,205	1,577,859	1,918,419	2,186,011
Capital works and services(f)—					
National Capital Development Commission(g) .. ..		10,000,000	11,000,000	10,950,000	11,000,000
Railways .. ..		2,958	2,645	10,500	940
Electricity .. ..		347,153	494,788	629,251	461,729
Transport services .. ..		61,818	67,406	79,500	243,717
Health buildings .. ..		91,302	52,498	284,881	316,495
Housing .. ..		170,000	317,000	350,000	275,000
Loans to co-operative building societies .. ..			17,500	500,000	1,000,000
Forestry .. ..		70,000	70,000	70,000	84,000
Civil aviation .. ..		98,573	36,004	34,735	24,132
Public works, n.e.i. .. ..		357,880	392,182	293,476	430,512
Total .. ..	8,421,686	11,199,684	12,450,023	13,202,337	13,836,525
All other—					
Roads and bridges .. ..	295,810	321,342	329,955	378,255	378,942
Parks and gardens, etc. .. ..	307,779	319,108	350,396	459,721	522,076
General land services .. ..	83,369	83,673	176,471	180,474	210,153
Housing .. ..	237,110	274,470	(h)	(h)	(h)
Civil aviation .. ..	33,439	48,644	53,505	57,434	71,819
Legislative and general administration .. ..	316,739	469,683	705,588	647,513	648,475
Public works, n.e.i. .. ..	42,572	68,352	409,589	571,903	517,638
Miscellaneous .. ..	45,847	46,494	50,862	58,541	87,025
Total .. ..	1,362,665	1,631,766	2,076,366	2,353,841	2,436,128
Grand Total .. ..	11,389,781	14,656,422	16,505,590	17,967,263	18,989,070

(a) Excludes electricity transactions in Australian Capital Territory Electricity Supply Trust Account. Revenue excludes particulars of water supply and sewerage, which are not available separately and are included in Rates and Other. (b) Includes premiums on sale of leases, 1960-61, £1,037,160, 1961-62, £511,970. (c) Other than Capital Works and Services. (d) Payment to Australian Capital Territory Transport Trust Account (loss on omnibus service). (e) Includes loss on operations, 1957-58, £30,000. Since 1958-59, Commonwealth-owned hostels in the A.C.T. have been operated by Commonwealth Hostels Ltd. (f) Excludes repairs and maintenance. (g) For details see para. 2 (i), p. 132. (h) Not available.

## NORFOLK ISLAND

1. **General.**—Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29° 3' 30" S., longitude 167° 57' 5" E. Its total area is 8,528 acres, the island being about 5 miles long and 3 miles wide. From Sydney, it is distant 930 miles, and from Auckland, 660 miles. The length of the coast line is 20 miles, and its form that of an irregular ellipse. Except for a portion on the south side and the landing place at Cascade on the northern side, almost inaccessible cliffs rise from the water's edge. The climate is equable, the temperature ranging between 49° and 85° F. with a mean of 68° F. The average annual rainfall is 53 inches.

Having served as a penal station from 1788 to 1813 and from 1826 to 1855, Norfolk Island in 1856 became the home of the remaining descendants of the *Bounty* mutineers. At the Census of 30th June, 1961, the population was 844, consisting of 421 males and 423 females.

2. **Administration.**—In 1856, the island was created a distinct and separate settlement under the jurisdiction of New South Wales. In 1896, it was made a dependency under the Governor of that Colony, and finally, by the passage of the *Norfolk Island Act* 1913, it was accepted by the Commonwealth Parliament as a territory of Australia. It is controlled by the Minister for Territories through an Administrator. There is a local government body, the Norfolk Island Council, which replaced the former advisory council, retaining its advisory functions, but in addition having a certain autonomy in local government matters on the island.

3. **Economic Activity.**—The major economic activities of the island are primary production, whaling, the tourist trade and Government instrumentalities.

(i) *Primary Industries.* The soil on the island is particularly fertile, the climate equable, and the rainfall fairly evenly distributed except for a pronounced dry period in November. This enables a wide range of temperate and semi-tropical products to be cultivated. However, the island's comparative isolation and trading difficulties with New Zealand hamper production, although a relaxation of some restrictions enabled a limited quantity of out-of-season fruit and vegetables to be sent by air freight to Auckland.

Apart from whaling, bean seed is the main export industry. The island's isolation from many plant diseases, plus the fairly reliable dry period, has ensured satisfactory production. Export figures for the five years to 1960–61 were 2,680, 1,713, 3,922, 2,568, and 1,342 bushels. However, wide fluctuations in prices, as in recent years, react unfavourably against the industry. The conditions on Norfolk Island also favour the production of other types of seed. Island conditions are also conducive to good pasture growth, and as a joint product of pastoral pursuits some hides and wool are exported.

Fish and, in certain months, whales abound off the island. In the past, a number of ventures have been formed to exploit these resources. They have been short-lived owing, for the most part, to the lack of a sheltered harbour. A modern whaling station was started on the island in 1955, and production commenced during the second half of 1956. The quota of 150 humpback whales in 1956, 120 in 1957 and in 1958, 150 in 1959, and 170 in 1960 and 1961, was caught and processed at the station. However, owing to a marked scarcity of whales, only four were caught in 1962, and the station has been closed down.

An active forestry programme is being carried out to increase the resources of Norfolk Island pine and to introduce suitable types of eucalypts. Logs suitable for the manufacture of plywood are exported in limited quantities to Australia.

(ii) *Tourists.* The unique history and unusual beauty of the island have always attracted a number of tourists. Before the 1939–45 War, the only means of transport to the island was by ship, but the building of the aerodrome in 1943 made the island far more accessible and a tourist industry has developed which is at present limited only by the accommodation available, there being at present one licensed residential hotel and five guest houses.

(iii) *Government Instrumentalities.* A large proportion of the population is employed by Commonwealth Government instrumentalities, namely:—Department of Civil Aviation, Norfolk Island Administration, Overseas Telecommunications Commission, and Department of the Interior (Meteorological Branch). The bulk of the finance for the operation of these instrumentalities is supplied by the Commonwealth Government and this greatly increases the income of the island.

4. *Trade, Transport and Communication.*—Imports to Norfolk Island since the 1939–45 War have risen from £32,402 in 1945–46 to £281,563 in 1960–61. In 1960–61, the major proportion (£234,634 or 83 per cent.) came from Australia, while New Zealand supplied £7,044 or 2 per cent. Exports have risen from £9,024 in 1945–46 to £210,182 in 1960–61. The big increase is due mainly to the commencement of operations by the whaling station in the 1956–57 season. Australia was the principal market, exports thereto amounting to £200,791 in 1960–61, while exports to New Zealand and to Pacific Islands amounted to £7,916.

No duties are chargeable on goods imported into Australia from Norfolk Island if the goods are the produce or manufacture of Norfolk Island, shipped direct to Australia, and not goods which if manufactured or produced in Australia would be subject to excise duty.

A shipping service to the island is maintained at approximately seven-week intervals, from Sydney via Norfolk Island to the New Hebrides, Solomon Islands and other island groups and thence back to Sydney. Shipping between the island and New Zealand is infrequent.

A fortnightly passenger and air freight service between Sydney and Norfolk Island, maintained by Qantas Empire Airways Ltd., extends to New Zealand under charter to Tasman Empire Airways Ltd.

There are approximately 50 miles of usable road on the island. As a substantial section of the population possesses private motor cars, and taxi-cab services are available, transport is almost exclusively by motor vehicle.

The cable from Great Britain via Vancouver, Fanning Island, and Fiji bifurcates at Norfolk Island, one line connecting with New Zealand, the other with Brisbane.

5. *Education.*—Education is free and compulsory up to the age of fifteen years. The school conforms to the Australian standard of public education, ranging from kindergarten to the intermediate certificate, with a two years' super-primary course of instruction in cultural subjects and in woodwork, needlework, leatherwork, basketry and hat-making. The teachers are provided by the New South Wales Education Department, but they are paid by the Norfolk Island Administration. The number of scholars enrolled at 30th June, 1961, was 152.

6. *Judiciary.*—The judicial system of the Territory was reconstituted by the *Norfolk Island Act 1957* which was proclaimed in the Territory on 7th April, 1960. There is now a Supreme Court of Norfolk Island and a Court of Petty Sessions, which replaced the Court of Norfolk Island in its full and limited jurisdictions. The Supreme Court is the highest judicial authority in the Territory with original criminal and civil jurisdiction. The jurisdiction of this Court is exercised by a judge sitting in Court to the extent provided by the *Supreme Court Ordinance 1960* or any other Ordinance or by rules of Court, and in all matters of practice and procedure by a judge sitting in Chambers. The jurisdiction of the Court of Petty Sessions is exercised by a Chief Magistrate or any three Magistrates other than the Chief Magistrate. This Court has jurisdiction to hear and determine in a summary manner under the provisions of the *Court of Petty Sessions Ordinance 1960*. There is right of appeal to the Supreme Court from the Court of Petty Sessions, and, in certain circumstances, a right of appeal to the High Court of Australia from judgments of the Supreme Court.

7. *Finance.*—The revenue of the Territory, together with an annual grant from the Commonwealth Government for administrative expenses, is paid to the credit of the Norfolk Island Trust Fund, and advances for administrative and developmental expenses are drawn from the account. The principal items of revenue and expenditure for the five years 1957–58 to 1961–62 were as follows.

**NORFOLK ISLAND: REVENUE AND EXPENDITURE**  
(£)

Item	1957-58	1958-59	1959-60	1960-61	1961-62
<b>REVENUE</b>					
Commonwealth subsidy .. ..	33,133	31,000	32,000	32,000	32,000
Customs duties .. ..	10,439	13,045	12,884	14,474	15,305
Sale of liquor .. ..	8,721	8,418	9,021	9,627	11,091
Post office .. ..	4,886	7,853	16,620	43,930	38,505
All other .. ..	12,058	12,785	11,479	8,806	11,565
<b>Total Revenue .. ..</b>	<b>69,237</b>	<b>73,101</b>	<b>82,004</b>	<b>108,837</b>	<b>108,466</b>
<b>EXPENDITURE</b>					
Administrative .. ..	23,030	23,091	24,196	23,643	27,758
Miscellaneous services .. ..	25,016	29,012	26,915	22,855	27,213
Repairs and maintenance .. ..	7,138	10,381	10,406	8,715	9,195
Capital works and services .. ..	7,640	19,901	12,748	7,010	21,073
Postal services .. ..	3,507	3,055	5,211	14,722	7,449
Other business undertakings .. ..	..	..	..	299	287
<b>Total Expenditure .. ..</b>	<b>66,331</b>	<b>85,440</b>	<b>79,476</b>	<b>77,244</b>	<b>92,975</b>

**PAPUA AND NEW GUINEA**

NOTE.—The information under this heading is applicable to both the Territory of Papua and the Trust Territory of New Guinea. For details of the respective Territories *see* pages 146 (Papua) and 151 (New Guinea) and following pages.

**§ 1. Administration**

The *Papua-New Guinea Provisional Administration Act 1945-1946*, which provided for the transfer back of control from the military authorities to civil authorities after the 1939-45 War, was repealed by the *Papua and New Guinea Act 1949* which came into force on 1st July, 1949. The latter Act approved the placing of the Territory of New Guinea under the International Trusteeship system and provided for an Administrative Union of the Territory of Papua and the Territory of New Guinea with one Administrator, one Supreme Court and one Public Service.

Provision was made for an Executive Council of not less than nine officers of the Territory, who shall be appointed by the Governor-General, and a Legislative Council consisting of twenty-nine members, namely:—the Administrator; sixteen officers of the Territory (who shall be known as official members); three non-official members possessing such qualifications as are provided by Ordinance and elected, as provided by Ordinance, by electors of the Territory; three non-official members representing the interests of the Christian missions in the Territory; three non-official native members; and three other non-official members.

The Legislative Council was inaugurated on 26th November, 1951, by His Excellency Sir John Northcott, while Administrator of Australia.

In October, 1960, the Commonwealth Parliament passed amendments to the *Papua and New Guinea Act* to change the composition of the Legislative Council, the new Council consisting of 37 members, namely:—the Administrator; 14 official members (who may be either indigenous or non-indigenous); 12 elected members (six elected by the native people); and 10 nominated members, of whom at least five will be indigenes. Eventually, elected members will be chosen by voters of all races registered on a common roll. The *Papua and New Guinea Act 1960* also replaced the Executive Council with the Administrator's Council, consisting of the Administrator and six other persons, appointed by the Minister for Territories, who shall be members of the Legislative Council.

## § 2. Judiciary

The courts which exercise jurisdiction within the Territory are:—

- (i) The Supreme Court of the Territory of Papua and New Guinea;
- (ii) Courts of Petty Sessions (Papua), District Courts (New Guinea);
- (iii) Courts for Native Matters (Papua), Courts for Native Affairs (New Guinea); and
- (iv) Warden's Courts.

The Supreme Court is the highest judicial authority in the Territory and has unlimited criminal and civil jurisdiction. Courts of Petty Sessions and District Courts have criminal jurisdiction over the less serious offences which are punishable on summary conviction, but have no jurisdiction to try treason crimes, misdemeanours and other indictable offences. They also exercise a limited civil jurisdiction. The jurisdiction of the Courts for Native Matters and Native Affairs covers offences by indigenous inhabitants against the Native Administration Regulations, and civil actions of any kind other than matters relating to the ownership of land or water if all parties are indigenes. The Administrator has power to establish, in respect of each gold field or mineral field, warden's courts with jurisdiction over civil cases respecting mining or mining lands held under the *Mining Ordinance* and offences against the mining laws of the Territory.

In addition, there are the Native Land Commission set up under the *Native Land Registration Ordinance* 1952 and the Commissioner of Titles appointed under the *New Guinea Land Titles Restoration Ordinance* 1951–1955, whose function is to inquire into and determine what land in the Territory is the rightful and hereditary property of persons or communities by customary right; and the persons or communities by whom, and the shares in which, that land is owned.

## § 3. Agriculture and Animal Industry

1. **Soils.**—Although a large part of Papua and New Guinea is covered by skeletal soils unsuitable for agriculture, there are extensive areas in all districts where fertile soils occur, suitable for growing a wide range of crops. Most of the agriculture of the Territory up to the present has been on soils on the coastal plains, which, apart from the swamp soils, consist mainly of alluvium and podsolized alluvium. So far, these have been mostly under coconut plantations, although other crops such as rubber and cocoa have also been grown. The swamp soils, of which there are extensive areas in the delta plains and other parts of the Gulf of Papua and in smaller areas, are found intermittently around the coasts and along the lower reaches of the rivers, and are in general quite unsuited to any form of agricultural development.

Volcanic soils probably offer the greatest prospects for development. They are found mostly on the central plateau and southern foothills of the main island, but there are also areas in New Britain (particularly in the Gazelle and Willaumez Peninsulas), Bougainville and New Ireland, as well as in numbers of smaller islands. Other rich soils are the alluvials of the river valleys. The largest single area of this type is in the trough occupied by the Ramu and Markham Rivers.

2. **Climate.**—The climate, particularly the rainfall, over so wide an area as Papua and New Guinea, with its numerous islands and varying elevations, naturally presents many variations. Generally speaking, the climate is moist and tropical, except at high altitudes. There are only small differences in both daily and seasonal extremes. The Territory has no winter and summer, and no great variation in day-length over the year. The two seasons which are experienced are generally described as the “south-east” and the “north-west”, corresponding with the periods of the year when the south-east trade winds and the north-west monsoons direct the main Territory air-flow. The south-east season prevails approximately from May to October, the trade winds attaining maximum velocities during July and August. The north-west monsoon operates over a considerably shorter period, from the end of December to about March. During the periods between these seasons, November and early December, and about March to April, there are two short spells of calm weather.

Rainfall varies considerably, from an average annual rainfall of 245 in. at Gasmata in New Britain and 231 in. at Kikori in Papua, to about 88 in. at Wewak in New Guinea and 40 in. at Port Moresby.

Although the Territory has no summer and winter, it has a wide temperature range, due to differences in altitude, varying from an absolute highest temperature of about 100° F. along the coast to freezing point on its highest peak, Mt. Wilhelm (15,400 ft.).

Humidity in the Territory is very high throughout the year. Some coastal stations register an average relative humidity of more than 90 per cent. Humidities below 60 per cent. are rare at coastal stations, average figures varying from 80 per cent. at 9 a.m. to 65 per cent. at noon and 75 per cent. at 3 p.m. Humidity in mid-mountain forests appears to be higher than in the lowlands, while in the mossy forests there are periods when the whole belt is saturated.

3. *Land Tenure.*—There is considerable variation throughout the Territory in the nature of customary ownership of land. In most areas, some rights remain in the landholding group, and individuals within the group have limited rights of use, either for life or for a shorter period. Thus the normal system by which the rights of ownership in land use are acquired is by birth to a landholding group. Transfer of rights between individuals by sale and purchase appears to have been unusual in the past, but this practice is now an established custom in some localities and appears to be increasing. Inheritance may be based on either patrilineal or matrilineal descent, or both. In parts of the Territory, however, there is a tendency for the whole inheritance system to change, particularly in communities where it is based on matrilineal descent. Following a close study of the problems in relation to land holdings by indigenes, the Government has laid down the following broad principles of policy.

The ultimate and long-term objective in Papua and New Guinea is to introduce throughout the Territory a single system of land holding regulated by the central Government by statute, administered by the Department of Lands of the central Government, and providing for secure individual registered titles after the pattern of the Australian system.

Only the central Government (i.e., the Administration working through the Department of Lands and the Registrar of Titles) may issue and register land titles.

Land subject to native custom remains subject to native custom only until it is taken out of custom either by acquisition by the Administration or by a process, to be provided for by Ordinance of the Territory, of conversion of title to an individual registered title.

Upon either acquisition or conversion of title, compensation is to be provided in respect of extinction of rights under native custom.

Land held under native custom may not be acquired outside of native custom by other than the Administration.

For the time being, land may not be acquired by the Administration unless the native owners are willing to sell and in the opinion of the Administration the land is not required by them; and conversion of title from native custom to individual registered title may take place only if the majority of those interested in the land under native custom consent to conversion and the method of conversion.

The services of Native Land Commissioners are to be used, as a first priority, on investigations into claims by the Administration that land is ownerless and may therefore be declared administration land, on investigation into the ownership under native custom of land proposed to be acquired by the Administration, on settlement of disputes about the ownership of land held under native custom, and, when legislative provision has been made, on investigations into the rights held under native custom in land proposed to be converted to individual registered title. The aim is that all the time of the Commissioners should be taken up with this work. To the extent that at any time it is not, the Commissioners should continue investigations into the holding of land under native custom; the results of such investigations are to be recorded for use in connexion with future acquisitions or conversions of title, but are no longer to be registered.



Consideration is being given to the legislation and administrative steps necessary to put this policy into effect.

**4. Suitable Crops.**—The crops which can be grown in Papua and New Guinea include coconuts, rubber, tea, coffee, cocoa, fibres, rice, pepper, tobacco, peanuts, kapok, cassava, ginger, cinchona, nutmeg, vanilla, tropical fruits and vegetables, sago and tung oil, but of these, the only crops of any commercial importance are coconuts, cocoa, rubber, coffee, peanuts and passion fruit.

**5. Plantation Agriculture.**—*Coconuts.* Territory coconut plantations suffered severely from damage and neglect during the 1939–45 War. Rehabilitation was rapid, however, and in 1960–61 about 667 plantations, together with native coconut stands, produced 110,412 tons of copra and exported 74,839 tons valued at £4,610,423. In addition, 19,625 tons of coconut oil, valued at £1,969,389, and about 11,506 tons of copra oilcake and meal, valued at £260,474, were exported in 1960–61. A copra crushing mill was established at Rabaul in 1952. Native stands produce about 25 per cent. of the copra exported.

*Rubber.* Exports of rubber have increased from 1,952 tons, valued at £802,177, in 1950–51 to 4,682 tons, valued at £1,210,722, in 1960–61.

*Cocoa.* Exports of cocoa beans increased from 317 tons, valued at £92,181, in 1950–51 to 10,015 tons, valued at £1,982,563, in 1960–61. Nearly 50 per cent. of the exports go to Australia. At present, native growers produce about 25 per cent. of the cocoa production in the Territory.

*Coffee.* Exports of coffee rose from 33 tons, valued at £8,359, in 1950–51, to 3,444 tons, valued at £1,557,306, in 1960–61. Of the 20,300 acres planted to coffee in the Territory, about 60 per cent. is in native-owned groves and the rest grown by Europeans in plantations. The bulk of the Territory coffee production is marketed in Australia.

**6. Native Agriculture.**—Most of the indigenous inhabitants of Papua and New Guinea are agriculturalists producing fruit and vegetables for their own consumption. The crops grown vary according to environment and altitude, and include yams, taro and sweet potatoes, coconuts, bananas, papaws, maize, sugar-cane, cassava, beans, peanuts, rice, cucurbits and tobacco. Sago is the staple food in the extensive semi-inundated areas which occur along the lower valleys of the major rivers. In these areas, it is cut largely from naturally occurring stands. In other parts of the country, small areas of sago are grown along stream banks and in swampy patches and are regarded as a reserve in times of poor harvest. In recent years, the indigenes have taken up the production of introduced crops such as peanuts, rice, cucurbits, and maize for their own consumption and cocoa and coffee for export. Some small-scale rubber growing is now being undertaken. In coconut areas, large quantities of copra are produced. In 1960–61, native production of copra was 26,900 tons, and that of cocoa and coffee about 2,000 tons and 750 tons respectively. In many localities, the indigenes follow a farming system known as bush fallowing rotation, which has been described in Official Year Book No. 48 and previous issues.

The growing of food is done by both the men and women. The division of work is usually clearly defined within the village itself, but this division is not necessarily the same in all areas. Generally it is found that felling the forests is always done by the men, and carrying the harvested food home to the village is nearly always done by the women. Other work, however, such as cultivating, planting and weeding may be done by either men or women according to the customs of the particular village or area.

The advancement of native agriculture for local food supply and improved land use in village gardens, as well as for economic production of crops for sale, have a high priority in Government policy for the Territory. A five-year (1962–63 to 1966–67) programme for intensification of agricultural work among the indigenous inhabitants of the Territory is being implemented.

**7. Animal Industry.**—Livestock in the Territory as at 31st March, 1962, included cattle, sheep, goats and pigs, approximate figures for each species being:—cattle, 23,508; sheep, 361; goats, 2,932; and pigs, 5,490. Other livestock includes horses, mules and poultry. These figures represent European-owned livestock only; native-owned livestock consists almost entirely of pigs and poultry.

A number of British breeds of cattle are represented in Territory herds. For dairying, Jersey and Australian Illawarra Shorthorns are most popular; Black Polled, Polled and Horned Shorthorns, and Red Polled cattle are raised for meat production. Under good management these breeds have done well in the Territory. There are a small number of Romney Marsh sheep at Nondugl in the highlands of New Guinea.

8. *Co-operative Societies.*—Co-operatives are under the supervision and guidance of a Registry of Co-operatives within the Department of Native Affairs, and trained staff are stationed in districts throughout the Territory. Societies fall into two main categories: primary and secondary. The primary consist of marketing and consumer retailing bodies dealing directly with individual members. A society which combines both these activities is termed a dual purpose primary. Secondary organization is represented by associations of societies, formed to achieve an amalgamation of purchasing power in retail consumer store operation and marketing volume in relation to agricultural production, and to concentrate capital to facilitate the purchase of large assets such as shipping, land transport, agricultural machinery, etc.

For the year ended 31st March, 1962, primary societies numbered 242, with a membership of 77,965, a total capital of £576,551, and a turnover of £1,113,877. Secondary organizations (year ended 31st March, 1961) numbered 13, with 196 member societies, a total capital of £262,747, and a turnover of £530,744.

#### § 4. Native Labour

Most of the indigenous inhabitants are farmers who are living mainly a subsistence existence and are comparatively free of economic or other pressures forcing them into wage employment.

Labour policy is designed to serve the general aim of the advancement of the people of the Territory and the development of its resources, particularly by controlling the nature and rate of social change.

As from 6th October, 1960, previous native labour legislation was superseded by the *Native Employment Ordinance 1958–1961*, which covers the great majority of native workers. The Ordinance divides the native labour force into three categories: agreement workers, casual workers and advanced workers.

*Agreement workers* are those who enter into an agreement with an employer to work for a specified period. The maximum agreement period for workers unaccompanied by their dependants is two years, but other workers may work for periods up to four years.

*Casual workers* are those workers who are employed without an agreement, and their employment may be terminated at their own or the employer's desire at any time. Casual workers can only be employed within their own home sub-district except where the place of employment is within 25 miles of their home, or unless they are holders of an Advanced Workers' Certificate, or are employed on a casual basis by their former employer under an agreement while awaiting transport to their homes after or within one month after the termination of their agreement, or unless the Administration may otherwise direct.

Workers who have a skill which should enable them to secure remunerative employment and whose education and social advancement enables them to look after themselves and their families properly in a cash economy may be classed as *Advanced Workers* and be issued with an Advanced Workers' Certificate. Advanced workers may be employed anywhere in the Territory and be paid a cash wage which includes cash in lieu of rations, clothing and other articles as prescribed under the Ordinance.

The Ordinance prescribes a minimum cash wage of 390s. a year, equivalent to 30s. a lunar month. In the case of an employee who has more than one year's service with an employer, the prescribed minimum wage is 455s. a year. For workers engaged in heavy labour the wage is increased by 130s. a year. In addition to the cash wage, an employer is required to provide the worker, free of charge, with rations, clothing and other articles such as blankets, eating utensils and toilet gear. Rations take into account the dietary needs of

the worker, and clothing and blanket issues vary according to location. In addition, the employer is required to provide accommodation and to arrange for the movement of the agreement worker from and to his home village at the beginning and at the end of the contract, without cost to the worker.

The Ordinance requires the employer to provide, free of charge, first aid equipment for the use of his employees and to provide medical supervision of the employees on a full time basis. Medical and hospital treatment is provided at the employer's expense. Rations, clothing, etc., accommodation, medical and hospital care have also to be provided to the workers' dependants when accompanying him with the employer's consent.

The maximum working week without penalty rates is 44 hours, and provision is made for overtime, call-out duty and a stand-by rate. Provision is made under the *Workers' Compensation Ordinance 1958-1960* for compensation in the case of injury or death.

Indigenes employed in the native constabulary come under the provisions of the *Royal Papua and New Guinea Constabulary Ordinance 1955-1959*, while those employed in the Auxiliary Division and the Third Division of the Territory Public Service come under the provisions of the *Public Service Ordinance 1949-1960*.

### § 5. Secondary Industries

Secondary industries which have been established in the Territory are most frequently of the type associated with the elementary processing for export of local products such as copra, rubber, cocoa, coffee, passion-fruit and timber on or near the plantations. There has been a gradual growth in the manufacture of more highly processed products, and industries already established include a paint factory, twist tobacco factories, a copra crushing mill, a plywood factory, biscuit factories, soft drink factories and breweries. Large service industries already well established include air, sea and land transport services, and the building industry, which is serviced by sawmilling, joinery, furniture and metal industries, concrete products manufactures, brickworks, etc.

A wide variety of maintenance facilities is also available to service the various Territory industries, including engineering workshops, slipways, etc.

The following table shows details of factory operations for the year ended 30th June, 1961.

**TERRITORY OF PAPUA AND NEW GUINEA: FACTORY OPERATIONS, 1960-61**

Particulars	Class of industry				
	Industrial metals, machines and conveyances	Food, drink and tobacco	Sawmills, plywood and joinery	Other industries (a)	Total
Number of factories .. ..	83	36	64	26	209
Employees—					
Non-indigenous .. ..	518	113	309	126	1,066
Indigenous .. ..	719	732	1,931	436	3,818
<i>Total</i> .. ..	<i>1,237</i>	<i>845</i>	<i>2,240</i>	<i>562</i>	<i>4,884</i>
	£'000	£'000	£'000	£'000	£'000
Salaries and wages paid .. ..	735	207	617	249	1,808
Value of output .. ..	1,745	1,450	3,081	3,236	9,512
power, fuel and light, etc. . .	28	61	86	213	388
materials and fuel used .. ..	701	740	1,288	2,315	5,044
production(b) .. ..	1,016	649	1,707	708	4,080

(a) Includes coconut oil processing, tyre retreading, paint manufacture, printing, powerhouses, etc.

(b) Value added.

## § 6. Finance

1. General.—The following table shows particulars of the financial operations of the Papua and New Guinea Administration for the years 1957–58 to 1961–62. Further information on each Territory will be found on pages 151 and 157.

## TERRITORY OF PAPUA AND NEW GUINEA: REVENUE AND EXPENDITURE (£)

Particulars	1957–58	1958–59	1959–60	1960–61	1961–62
<b>REVENUE</b>					
<b>Taxation—</b>					
Income tax .. .. .			1,812,963	2,347,978	2,211,929
Customs duties .. .. .	2,746,977	3,373,528	2,411,529	2,433,732	2,678,514
Motor registration .. .. .	62,136	71,733	77,770	87,768	102,380
Stamp duties .. .. .	86,589	68,357	81,672	86,489	123,169
Licences .. .. .	31,555	30,082	31,497	34,251	38,644
Personal .. .. .	103,486	153,772	175,489	146,867	111,174
<b>Business undertakings—</b>					
Post office .. .. .	296,022	354,272	412,428	496,256	580,911
Harbour dues, wharfage, etc. .. .. .	116,836	155,082	156,323	189,211	192,108
Electricity supply .. .. .	380,945	436,863	471,060	521,673	576,628
Sale of timber .. .. .	136,529	126,768	128,497	129,326	74,258
Copra and rubber production .. .. .	22,690	26,321	43,762	29,721	25,215
Other agricultural production .. .. .	39,076	56,714	84,857	74,025	155,472
Water supply .. .. .	18,676	17,876	22,800	27,301	32,846
Transport .. .. .		43,029	40,795	22,277	
<b>Lands—</b>					
<b>Mining—</b>					
Royalty on gold .. .. .	15,825	6,438	9,230	7,417	7,942
Other .. .. .	10,446	9,612	8,650	9,418	8,814
Forestry .. .. .	81,555	81,529	101,415	121,394	147,078
Land sales, rents, etc. .. .. .	147,466	109,800	99,515	127,328	113,191
Commonwealth grant .. .. .	10,796,491	11,478,910	12,808,282	14,796,648	17,293,398
Fees and fines .. .. .	135,918	155,565	159,940	166,949	185,429
All other .. .. .	292,304	327,406	263,736	392,719	340,097
<b>Total .. .. .</b>	<b>15,521,522</b>	<b>17,083,657</b>	<b>19,402,210</b>	<b>22,248,748</b>	<b>24,999,197</b>
<b>EXPENDITURE</b>					
<b>Business undertakings—</b>					
Post office .. .. .	607,037	696,001	815,305	881,968	1,031,191
Harbours .. .. .	88,158	133,579	138,773	122,411	142,422
Electricity supply .. .. .	289,742	380,226	409,070	447,354	511,092
Saw-mill .. .. .	82,247	90,370	84,397	76,678	43,577
Water supply and sewerage .. .. .	114,002	124,116	120,416	128,107	139,039
<b>Social expenditure—</b>					
Education .. .. .	839,563	1,035,945	1,290,592	1,641,296	2,138,048
Grants to missions for education .. .. .	180,605	194,689	261,093	405,260	341,272
Public health, hospitals, etc. .. .. .	1,673,676	1,738,009	2,115,460	2,403,790	2,786,135
Mission medical services—grants .. .. .	232,239	267,061	286,233	305,264	304,583
Law, order and public safety .. .. .	575,306	627,094	862,115	1,023,707	1,234,428
District services and native affairs .. .. .	1,013,017	1,106,568	1,246,727	1,372,150	1,465,154
Capital works and services .. .. .	4,326,456	4,608,033	4,822,424	5,133,965	5,381,834
All other .. .. .	5,493,955	6,075,746	6,880,042	8,389,108	9,482,025
<b>Total .. .. .</b>	<b>15,516,003</b>	<b>17,077,437</b>	<b>19,332,647</b>	<b>22,331,058</b>	<b>25,000,800</b>

2. Taxation.—The main forms of taxation are income tax, personal tax and import duties.

*Income Tax* was imposed on 1st August, 1959, to operate from 1st July, 1959. The scale of taxation is about 50 per cent. of the tax payable on the same taxable income in Australia. Deductions for dependants the taxpayer is maintaining, and maximum deductions for medical, dental and educational expenses are considerably higher than those allowed in Australia. The tax on public companies is at a flat rate of 4s. in the £1, which is a little over half the predominant rate of company tax in Australia, while on private companies the rate is 2s. 6d. in the £1 for the first £5,000 and 3s. 6d. for the remainder,

and generally comparable deductions are allowed. On 1st January, 1958, a *Personal Tax* was introduced for all males (including non-indigenous) of 18 years of age and over in Papua and New Guinea. The maximum tax is £2 per annum; the tax assessed is subject to the taxpayers' ability to pay, and consequently large areas have been exempted. Native Local Government Councils (which are formed voluntarily by the indigenes) are, however, empowered to levy taxes on villagers for the purpose of providing for local services carried out by the Councils. These taxes are set off against the indigene's Personal Taxation.

The present *Customs Tariff* provides high revenue rates on imports of ale, spirits, tobacco and cigarettes, timepieces, cigarette papers, fancy goods and jewellery, but allows entry of most necessities affecting living and building costs duty free, or at a low rate of duty. There is a by-law provision under the Customs Tariff to enable duty-free admission to be granted for plant, machinery and chemicals to be used mainly for industrial and development purposes and for goods imported by passengers. No preferential rates are specified in the schedule. Export duties imposed on copra, cocoa, rubber, mother-of-pearl, trochus and burgos shell, and gold were repealed in July, 1959.

Provision is made in the *Australian Customs Tariff (Papua and New Guinea Preference)* 1936 for the free entry into Australia of certain goods produced in and imported direct from the Territory (see Chapter XIII. Oversea Trade), and a proclamation of 25th September, 1935, exempted from primage duty goods produced or manufactured in the Territory.

## PAPUA

### § 1. General Description

1. *Area, etc.*—Papua lies wholly within the tropics. The northernmost point touches 5° S. latitude; its southernmost portion, comprising Tagula and Rossel Islands, lies between 11° S. and 12° S. latitude. It is separated from Australia by Torres Strait. The length of Papua from east to west is upwards of 920 miles; towards either end the breadth from north to south is about 200 miles, but about the centre it is considerably narrower. The Territory comprises also the islands of the Trobriand, Woodlark, D'Entrecasteaux and Louisiade groups. The length of coast-line is estimated at 3,664 miles—1,728 on the mainland, and 1,936 on the islands. The total area is 90,540 square miles, of which 87,540 are on the mainland, and 3,000 on the islands. A reference to the physical characteristics of the Territory appears in previous issues of the Official Year Book (see No. 18, p. 633).

2. *Administration.*—Particulars of the early administration of Papua are given in Official Year Book No. 19, page 576. The Territory was placed under the authority of the Commonwealth on 1st September, 1906, by proclamation issued in pursuance of Letters Patent of 18th March, 1902, and was accepted by the Commonwealth by the *Papua Act*, 1905, which came into force by virtue of the aforesaid proclamation. The transfer was made under the authority of Section 122 of the Constitution. The Territory is under the control of the Commonwealth, but not included within it, and is divided into six magisterial districts, Southern Highlands, Western, Gulf, Central, Milne Bay and Northern.

### § 2. Population

1. *Non-indigenous Population.*—At the Census of 30th June, 1961, the non-indigenous population of Papua was 5,490 males, 4,304 females, 9,794 persons. The total non-indigenous population at the Censuses of 1921, 1933, 1947 and 1954 was, respectively, 2,078, 2,173, 3,239 and 6,313 persons.

The European population of Papua increased slowly, and with some reversals in trend, from less than 700 in 1906, the year in which the Territory came under Commonwealth control, to 1,343 at the Census of 1921. At the 1961 Census, it amounted to 8,260 persons.

2. *Indigenous Population.*—It is not possible to give exact data regarding the number of indigenes because part of the interior is not as yet under complete Government control. However, the enumerated and estimated population of the Territory of Papua at 30th June, 1961, numbered 513,648 persons. This comprised 446,308 enumerated persons (236,676 males and 209,632 females) and 67,340 estimated. The total number was distributed through districts as follows:—Southern Highlands, 167,055; Western, 53,277; Gulf (including the former Delta district), 56,281; Central, 100,807; Milne Bay, 87,179; and Northern, 49,049.

### § 3. Land Tenure

The basic principle of the land laws of Papua is that all land not specifically alienated by due process from the native people, or established to be vacant and ownerless, is native land. At 30th June, 1961, of the total area of Papua, approximately 58,000,000 acres, only 1,869,381 acres had been alienated. The distribution of alienated land at 30th June, 1961, according to tenure, was as follows:—held by private non-indigenous inhabitants freehold, 24,280 acres, leasehold, 345,131 acres; native reserves, 68,197 acres; other, including public reserves and land available for leasing, 1,431,773 acres.

Although a small amount of freehold land exists in Papua, no further estates in freehold can be granted under the provisions of the *Land Ordinance* 1911–1961 of Papua. Leases of various kinds may be granted by the Administration. The principal types of leases available are agricultural leases, pastoral leases, leases of town allotments, business leases and residence leases of other than town allotments, and various forms of special leases and licences over land. Leasehold terms are liberal, and, in general, leases may be granted for periods of up to 99 years. Rent is based on the unimproved value of the land.

Leases of Crown land are granted by the Administrator following a land use examination, advertisement of leases available and consideration of applications by the Land Board. Dealings in privately-owned land are a matter for private treaty. Native-owned land, however, cannot be acquired or leased from the native owners by private individuals. The Administration alone may purchase native-owned land, and then only if the owners are willing to sell and the Administration is satisfied that the owners do not require, and are not likely to require, the land.

The registration of titles, interests and dealings in alienated land is provided for under the *Real Property Ordinance* 1913–1955 modelled on the Torrens system of land registration. A start has been made on the recording of native land ownership under the *Native Land Registration Ordinance* 1952.

### § 4. Production

1. **General.**—The products of the Territory are obtained principally from its agricultural, forestry, mining and fishing industries. Native subsistence agriculture, fishing, and hunting produce most of the food requirements of the indigenous population. The main native agricultural products are taro, yams, sweet potatoes, bananas and papaws. Peanuts are becoming of increasing importance in native diet. Non-indigenous enterprise produces most of the commodities exported. Indigenes, however, do produce copra for export, while native enterprise in other fields of agricultural production for export purposes, e.g., cocoa and coffee, is being encouraged. The principal agricultural products of Papua for the export trade are copra and rubber. Native production of copra is increasing. Practically all the timber milled during 1960–61 was absorbed by local building requirements. The main products of fisheries exported from Papua are trochus and green snail shell. Gold, manganese, zinc-lead and copper ores have been mined in commercial quantities in the past, but current production is limited.

For the sake of convenience, agricultural and pastoral conditions in Papua and New Guinea have been dealt with as a whole, and reference should be made to pages 140–3 for information on the soils, climate, crops, methods of cultivation, etc., throughout both Territories. The following paragraphs relate to forestry, mining, fisheries and water-power resources in Papua.

2. **Forestry.**—A general description of the forest policy which applies in Papua as well as in the Trust Territory of New Guinea is given under the heading, Timber, on page 153.

Mixed species tropical rain forest covers most of Papua, although north-east of Port Moresby there is an area of monsoonal savannah country. Because of the mixed nature of the timbers in any one area, their utilization on an economical basis is somewhat difficult. Mangroves occur in large areas fringing the Gulf of Papua. Forestry field work is carried out in Papua with a view to assessing the forest resources available and also to survey areas subsequently made available for cutting.

At 30th June, 1961, 33 permits and seven licences were current. The total areas of forest involved were 223,060 acres and 41,211 acres respectively. The total number of mills was 18, and the total sawn-timber produced for the year was 3.3 million super. feet, most of which was used locally.

3. **Mining.**—Although a large number of minerals have been found in Papua, including platinum, gold, silver, copper, tin, lead, zinc, cinnabar, iron, osmiridium, manganese, sulphur, chromite, gypsum, and lignite, current mineral production is not of economic importance.

Gold was discovered in 1888 and has been found since in many parts of Papua. Before the 1939–45 War, gold was an important item in the Territory's production, but it has since dwindled to insignificance.

Large quantities of copper ore were mined and exported up to 1940. Good samples of galena (sulphide of lead) have been obtained, but other minerals are not found in commercial quantities.

Since the search for oil began in Papua in 1911, over £36 million has been spent. The existence of petroleum has been traced at scattered intervals over a large area, but commercial quantities have not been discovered. At 30th June, 1962, four companies held petroleum prospecting permits and licences under the provisions of the *Petroleum (Prospecting and Mining) Ordinance* 1951–1961. Oil prospecting is, at present, confined mainly to the Gulf and Western Districts.

4. **Fisheries.**—Surveys have been carried out of the fisheries resources of Papua. These have been demonstrated to be considerable, and efforts are being made to increase the present small degree of utilization. Assistance is also being given by the Administration in improving the indigenous methods of fishing, and the use of improved gear is being encouraged by extension workers. Shell fishing, particularly trochus, provides the main cash return, exports being valued at £20,000 in 1960–61.

5. **Water Power.**—Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that there is at least 10 million horse-power available for this purpose.

## § 5. Trade, Transport and Communication

1. **Imports and Exports.**—(i) *Total Values.* The table below summarizes the values of imports and exports for the years 1956–57 to 1960–61.

### TERRITORY OF PAPUA: IMPORTS AND EXPORTS

(£)

Particulars	1956–57	1957–58	1958–59	1959–60	1960–61
<i>Imports(a)</i> .. ..	8,734,152	8,850,437	8,324,388	8,409,546	9,935,271
<i>Exports—</i>					
Domestic exports .. ..	2,261,734	2,082,667	2,564,551	2,986,448	2,468,161
Re-exports .. ..	504,588	693,385	1,040,909	871,111	1,420,992
<i>Total Exports</i> .. ..	2,766,322	2,776,052	3,605,460	3,857,559	3,889,153

(a) Includes outside packages.

(ii) *Imports.* The following table shows the countries of origin of imports.

**TERRITORY OF PAPUA: COUNTRY OF ORIGIN OF IMPORTS**  
(f)

Country of origin	1956-57	1957-58	1958-59	1959-60	1960-61
Australia .. .. .	5,838,299	5,632,004	5,684,265	5,439,082	6,496,989
Canada .. .. .	7,657	101,575	4,871	6,991	8,801
Germany (Federal Republic) ..	103,576	141,409	135,715	140,250	168,359
Hong Kong .. .. .	151,555	209,398	193,364	278,796	335,999
Indonesia .. .. .	376,521	239,206	353,697	365,920	332,358
Japan .. .. .	153,394	190,702	234,419	407,997	502,695
United Kingdom .. .. .	550,585	689,640	562,596	552,241	738,164
United States of America ..	1,118,046	1,219,289	749,079	754,548	697,646
Other countries .. .. .	361,619	363,535	331,900	463,721	654,260
<b>Total .. .. .</b>	<b>8,661,252</b>	<b>8,786,758</b>	<b>8,249,906</b>	<b>8,409,546</b>	<b>9,935,271</b>

(a) Includes outside packages.

(iii) *Exports.* (a) *Countries of Destination.* The countries of destination of exports from Papua are shown below.

**TERRITORY OF PAPUA: COUNTRY OF DESTINATION OF EXPORTS**  
(£)

Country of destination	1956-57	1957-58	1958-59	1959-60	1960-61
Australia .. .. .	2,240,392	2,200,285	2,982,549	3,102,673	2,894,485
United Kingdom .. .. .	396,921	386,532	485,833	603,453	447,368
Other countries .. .. .	129,009	189,235	137,078	151,433	547,300
<b>Total .. .. .</b>	<b>2,766,322</b>	<b>2,776,052</b>	<b>3,605,460</b>	<b>3,857,559</b>	<b>3,889,153</b>

(b) *Principal Commodities.* The following table provides details of the value of the principal domestic exports for the same years.

**TERRITORY OF PAPUA: PRINCIPAL DOMESTIC EXPORTS**  
(£)

Commodity	1956-57	1957-58	1958-59	1959-60	1960-61
Rubber .. .. .	1,148,542	1,114,716	1,151,871	1,500,197	1,292,151
Copra .. .. .	942,286	847,472	1,303,017	1,362,650	1,032,724
Cocoa beans .. .. .	7,717	13,825	23,275	19,185	30,264
Gold .. .. .	5,911	7,093	6,408	2,003	1,171
Shell (marine) .. .. .	101,265	43,276	26,580	37,970	19,556
Crocodile skins .. .. .	26,568	35,579	15,345	21,360	51,577
Other .. .. .	29,445	20,706	38,055	43,083	40,718
<b>Total .. .. .</b>	<b>2,261,734</b>	<b>2,082,667</b>	<b>2,564,551</b>	<b>2,986,448</b>	<b>2,468,161</b>



2. **Shipping.**—In 1960–61, 205 British vessels and 47 of other nationalities called at Territory ports and discharged 99,746 tons of cargo and loaded 28,249 tons.

Regular passenger and freight services operate between Australia, New Guinea and Papua. Vessels trading between Australia and the East also call at Territory ports, and there are occasional ships to the United Kingdom, vessels of one shipping line trading between the United Kingdom and Australia calling at Port Moresby approximately at quarterly intervals. Coastal and inter-island shipping services are maintained by vessels operating from the two principal ports of Port Moresby and Samarai.

3. **Other Forms of Transport and Communication.**—Air services link Papua with Australia, New Guinea, the British Solomon Islands and Hong Kong. There were 62 aerodromes and seaplane alighting areas in Papua at 30th June, 1961, and of these 13 were the responsibility of the Department of Civil Aviation, 29 were operated and maintained by the Administration, and 20 owned and maintained by Missions, plantation and mining interests. Much of the internal traffic and freight is carried on a charter basis. Regular air services operate from Port Moresby to Daru in the west, Samarai and Popondetta in the east, and to various centres in New Guinea.

At 30th June, 1961, there were 1,763 miles of road in Papua, of which 727 miles were suitable for medium and heavy traffic, the greater proportion being located in the Central and Northern Districts.

Telephone services operate in the main centres. The radio station at Port Moresby for both transmission and reception is jointly shared by the Overseas Telecommunications Commission and the Administration. The former provides a service between Papua, Australia and the Territory of New Guinea, while the latter operates radio telephone and radio telegraph services from Port Moresby, Samarai and Daru to 113 outstations. A direct telegraph service operated by the Overseas Telecommunications Commission, on a schedule basis, is in operation between Port Moresby and West New Guinea.

Medium and short-wave programmes are broadcast from the Australian Broadcasting Commission stations 9PA and VLT6 located at Port Moresby.

## § 6. Education and Health

1. **Education.**—Education in the Territory is provided by the Administration and various Mission Organizations. Schools for indigenes have also been established by Native Village Councils. The *Education Ordinance* 1952–1957 enables the Administration to establish an education advisory board, district education committees and European and native schools, and to grant financial aid for educational purposes. European teachers are recruited from Australia, and native teachers are trained in the Territory by the Administration and Missions. During the year ended 30th June, 1961, 131 schools were maintained by the Administration for 11,457 children, of whom 786 were Europeans, 87 Asian or of mixed race, and 10,584 indigenes. The total number of pupils in the various grades of mission schools was 48,700, of whom there were 247 Europeans, and 480 Asian or of mixed race. To assist the educational work of the Missions, the Administration provides expert advice, educational equipment, and text-books. In addition, the sum of £122,164 was distributed among the Missions as grants-in-aid during the year ended 30th June, 1961.

2. **Health.**—The Department of Public Health of the Territory of Papua and New Guinea has the general oversight of all dental and medical services. The Department has the following seven functional divisions: medical services; preventive medicine; medical training; infant, child and maternal health; medical research; administration; and mental health. The services for the Territory of Papua are under the administrative control of a regional medical officer, with headquarters staff at Port Moresby.

At 30th June, 1961, the Administration had established 27 general hospitals, six special hospitals for the treatment of tuberculosis, two hospitals (including special wards) for the treatment of Hansen's disease, one Hansenide-tuberculosis hospital and one mental hospital; the Missions had established 24 general hospitals, with special wards at Balimo and Tari for the treatment of Hansen's disease. There were 399 village aid posts or medical centres (112 Mission) and 123 maternal and child welfare clinics (43 Mission). School medical examinations, immunization, ante-natal and post-natal care and pre-school services are also provided. The Missions employ their own doctors and nurses in their medical establishments.

For some years, suitably qualified indigenes have attended the Central Medical School at Suva, Fiji, to be trained as Assistant Medical Officers. In 1959, the Administration began training to a similar standard at the Papuan Medical College which is associated with the Port Moresby General Hospital. The College, planned to accommodate 600 students eventually, is being built in stages. The course consists of a preliminary year and five years further study. Training for nurses and medical auxiliaries in many categories is also being provided.

The cases treated in hospital are mainly malaria, tropical ulcers, pneumonia, tubercular infections and tuberculosis, bronchitis and confinements.

## § 7. Finance

The following table shows the principal items of revenue and expenditure for the Territory for each year from 1957-58 to 1961-62.

### TERRITORY OF PAPUA: REVENUE AND EXPENDITURE (f)

Item	1957-58	1958-59	1959-60	1960-61	1961-62
REVENUE					
Commonwealth grant ..	4,607,669	4,772,537	4,948,361	5,515,054	7,179,031
Customs duties(a) ..	969,688	1,135,095	868,813	1,023,644	1,089,571
Income tax ..	..	..	882,558	1,136,394	1,248,973
All other ..	829,317	914,279	1,017,446	1,162,620	1,173,730
<b>Total Revenue ..</b>	<b>6,406,674</b>	<b>6,821,911</b>	<b>7,717,178</b>	<b>8,837,712</b>	<b>10,691,305</b>
EXPENDITURE					
Public health ..	652,350	709,654	899,370	1,004,342	1,166,258
Native affairs ..	332,970	396,939	446,895	490,154	519,225
Education ..	378,489	450,961	672,504	754,051	913,156
Maintenance ..	589,910	784,932	862,487	1,026,019	1,252,818
Capital works and assets ..	2,262,548	2,041,676	1,996,824	2,277,046	2,662,845
All other ..	2,184,888	2,431,529	2,769,535	3,368,410	4,178,606
<b>Total Expenditure ..</b>	<b>6,401,155</b>	<b>6,815,691</b>	<b>7,647,615</b>	<b>8,920,022</b>	<b>10,692,908</b>

(a) Includes Harbour Dues and Wharfage.

For particulars of the finances of the combined Territory administration, *see* page 145.

## TRUST TERRITORY OF NEW GUINEA

### § 1. General Description

1. Area, etc.—The land area of the Territory of New Guinea is about 93,000 square miles, and the area, including the sea, within the lines drawn through its extreme outer points is more than one million square miles. As the coast lines have not been completely surveyed, the areas of the various islands are known only approximately.

The approximate areas of the principal islands, together with the small islands adjacent thereto, are as follows:—North-East New Guinea, also called the mainland, 70,200 sq. miles; Bismarck Archipelago—New Britain, 14,100 sq. miles, New Ireland, 3,340 sq. miles, Lavongai, 460 sq. miles, Admiralty Islands, 800 sq. miles, total Bismarck Archipelago, 18,700 sq. miles; Solomon Islands—Bougainville, 3,880 sq. miles, Buka, 220 sq. miles, total Solomon Islands, 4,100 sq. miles; grand total, 93,000 sq. miles.

Information regarding physiography and climate will be found in Official Year Book No. 22, page 613, and in the *Official Handbook of the Territory of New Guinea*.

2. **Early Administration.**—On 17th September, 1914, the Acting Governor of German New Guinea signed terms of capitulation with the officer commanding a Naval and Military Expedition sent from Australia, and thereafter the Territory was under military administration until the establishment of Civil Government on 9th May, 1921.

In 1919, it was decided by the Principal Allied and Associated Powers that the Territory of New Guinea, which Germany gave up as one of the terms of peace, should be entrusted to the Government of the Commonwealth under Mandate from the League of Nations. However, the issuing of the Mandate was delayed, and it was not until 17th December, 1920, that its terms were settled, and the Mandate itself did not reach Australia until April, 1921.

The terms of the Mandate are given in Official Year Book No. 33 (*see* p. 264).

For particulars of the administration of the Territory of New Guinea prior to the setting-up of the Papua and New Guinea Administration, *see* Official Year Book No. 36 and earlier issues, and for events following the outbreak of the Pacific War *see* Official Year Book No. 37 and subsequent issues.

3. **Trusteeship (1946).**—The Commonwealth Government undertook to place the Territory of New Guinea under the Trusteeship System established under the Charter of the United Nations. The Trusteeship Agreement for the Territory, under which the Government of Australia is the sole administering authority, was approved by the General Assembly of the United Nations Organization on 13th December, 1946. The terms of the Agreement are shown in Official Year Book No. 39, pages 355–7.

For administrative purposes, the Territory is divided into the following nine districts:—New Britain, comprising New Britain and adjacent islands; Morobe, Madang, Eastern Highlands, Western Highlands, and Sepik on the mainland; New Ireland, comprising New Ireland, Lavongai and adjacent islands; Manus, comprising the Admiralty Group; and Bougainville in the Solomon Islands. Each district is administered by a District Commissioner.

## § 2. Population

1. **Non-indigenous Population.**—At the Census of 30th June, 1961, the non-indigenous population of the Territory was 9,158 males, 6,378 females, 15,536 persons. The total non-indigenous population at the Censuses of 1921, 1933, 1947 and 1954 was, respectively, 3,173, 5,216, 6,200 and 11,442 persons. At the 1961 Census, the European population numbered 11,702 persons.

2. **Indigenous Population.**—The indigenes are divided into two main groups—Melanesian and Papuan—the former, with a few exceptions, constituting the population of the Bismarck Archipelago, the Solomon Islands, and the coastal districts of the New Guinea mainland, the latter inhabiting the interior of the mainland. Some tribes of Negritos exist in the mountains of New Guinea. There is a strain of Papuan, and possibly, of Polynesian blood in the Admiralty Islanders, while the Western Islanders and the inhabitants of the small islands east and south-east of New Ireland are Micronesians. (*See* Official Year Book No. 16, p. 670, and *Official Handbook of the Territory of New Guinea*, Pt. V.)

The enumerated and estimated indigenous population of the Territory as at 30th June, 1961, numbered 1,433,383 persons, comprising enumerated, 1,369,083 (721,806 males and 647,277 females), and estimated, 64,300. The total population was distributed throughout the several districts as follows:—Eastern Highlands, 345,206 persons; Western Highlands, 269,329; Sepik, 259,070; Madang, 139,158; Morobe, 196,941; New Britain, 109,961; New Ireland, 39,345; Bougainville, 56,330; Manus, 18,043.

## § 3. Land Tenure

The principles governing the acquisition and ownership of land and types of tenure available in New Guinea are in general similar to those which obtain in Papua, and although, under the *Land Ordinance* 1922–1961, grants of freehold estates may be made, as a matter of policy all grants are now restricted to leaseholds. In New Guinea, however, the amount of freehold land of earlier origin held by private non-indigenous owners amounts to more than half a million acres. Freehold titles to this land, which includes a good deal of plantation land, may be transferred by purchase, subject only to the general provision that dealings in land require the approval of the Administrator.

The area of the Territory of New Guinea is estimated at 59,520,000 acres, of which at 30th June, 1961, only 1,442,229 acres were alienated. The following was the distribution of alienated land according to tenure at 30th June, 1961:—held by private non-indigenous inhabitants—freehold, 541,250 acres, leasehold, 356,301 acres; held by Administration, 517,012 acres; native reserves, 27,666 acres.

Under German law there was a system of registration of titles in a "Ground Book", but registration did not confer an indefeasible title. The German system has been replaced by one modelled on the Torrens plan, embodied in the *Lands Registration Ordinance* 1924–1955. The land registers were lost during the 1939–1945 War, but provision for restoration of the lost titles is made in the *New Guinea Land Titles Restoration Ordinance* 1951–55. A start has been made on the recording of native land interests under the *Native Land Registration Ordinance* 1952.

## § 4. Production

1. **General.**—The products of the Territory are obtained principally from its agricultural, mining, fishing and forestry industries. A copra crushing mill near Rabaul, established in 1952, commenced crushing at about 18,000 tons of copra per annum, and its capacity is now about 60,000 tons of copra per annum. Crushing of about 40,000 tons of copra was in view for 1962. At Bulolo, a company is producing high quality moisture-proof plywood and veneers in a factory whose capacity is over 40 million square feet, on a  $\frac{3}{8}$ -in. basis, per annum. Native subsistence agriculture, fishing, and hunting produce most of the food requirements of the indigenous population. The main native agricultural products are aro, yams, sweet potatoes, coconuts, bananas and papaw. Non-indigenous enterprise produces most of the commodities exported. Indigenes, however, produce copra for export, and in recent years have taken up the production of introduced crops such as peanuts, rice, cucurbits and maize for their own consumption and cocoa and coffee for export. The principal agricultural products of New Guinea for the export trade are copra and cocoa. While most of the timber milled during 1960–61 was absorbed by the local market, exports continued to increase (*see para. 2 below*). The main products of fisheries exported from New Guinea are trochus and green snail shell, including that collected by indigenes. Gold is the principal mineral mined. Indigenes are taking an increasing interest in mining for alluvial gold on their own account, and production from this source is continually rising, in contrast to falling European production.

For information on the agricultural and pastoral industries, which for the sake of convenience covers the Territory of Papua and New Guinea as a whole, *see* pages 140–3. The following paragraphs relate to the timber, fishing and mining industries in the Territory of New Guinea alone.

2. **Timber.**—Various species of timber are found in the Territory, but the only accessible pure stand is the valuable pine forests of the Bulolo Valley. This timber is used mainly for the production of plywood and veneer by Commonwealth-New Guinea Timbers Ltd., which has an annual cut of about 10 million super. feet of logs. About 32.0 million square feet of plywood, on a  $\frac{3}{8}$ -in. basis, was produced by the company in 1960–61 from these logs and from the bulk of 47.5 million square feet of  $\frac{1}{8}$ -in. veneer produced by South Pacific Timbers Limited at Lae. Exports of plywood in 1960–61 were 21.9 million square feet, valued at £866,000, and 4.6 million square feet of veneer, on a  $\frac{1}{8}$ -in. basis, valued at £38,000. During the year, 1.2 million super. feet of logs, valued at £40,000, and 3 million super. feet of sawn timber, valued at £220,000, were also exported from the Territory. The Territory forests also provided fitches, battery veneer and egg-case parts for export.

The Administration operates a training centre for forestry workers, nurseries and a herbarium, and is establishing a research institute in Port Moresby.

The *Forestry Ordinance* 1936–1951 provides for the issue of permits and licences to cut timber. Present policy calls for the orderly development of the timber industry on sound forestry principles to ensure no waste of the resources and no over-exploitation; the grant of emergency timber permits for limited quantities to assist in providing timber for Territory requirements; the disposal by public tender of timber areas designated by forest officials of the Territory; and the development of the pine stand in the Bulolo Valley by Commonwealth-New Guinea Timbers Ltd. Timber growing on native lands cannot be acquired

by private purchasers direct from the native people, but must be obtained through the Administration. Royalty is payable on all forest produce taken under permit or licence. Re-afforestation of areas dedicated for forestry in perpetuity is carried out by the Administration.

At 30th June, 1961, 35 permits and four licences were current, the total area of forest involved being 244,599 acres and 8,203 acres respectively. The Administration was also exploiting 35,000 acres.

3. **Fisheries.**—The wealth of the waters of the Territory has been little exploited, but as the result of surveys and the development of the Administration fisheries service, action is being taken to promote increased use of the resources. Fish are caught at many places along the coast to supply the small local demand of the natives and of Europeans. Trochus shell to the value of £27,873 and green snail shell to the value of £6,554 were exported during 1960–61.

4. **Mining.**—The production of gold and associated silver is the most important mining activity in New Guinea. Gold has been discovered on the Waria, the Ramu, the Francisco, and the Markham Rivers, and in tributaries of the Sepik River. Rich gold deposits were first discovered in the Morobe District in 1926. The field is situated about 80 miles (40 by air) inland from Lae, the nearest coastal port. Communication is established with the coast by regular air service and by road transport. Silver is found usually associated with the gold in these deposits. Osmiridium is reported to have been found on the upper tributaries of the Ramu, and platinum on the Kabenau River. Copper has been discovered in the form of chalcopyrite and malachite in the Baining District. Iron ore occurs as magnetite and haematite in the Baining District. Sulphur occurs in several localities in the volcanic regions of the Territory. Brown coal has been found on the mainland in the vicinity of Astrolabe Bay, and in the southern portion of New Ireland. The commercial production of minerals other than gold and silver has not been undertaken.

The granting of rights, leases and claims for mining purposes is provided for in the *Mining Ordinance 1928–1959* and regulations thereunder.

The production of gold in New Guinea since the 1939–45 War has been on a much smaller scale than before the war, averaging less than £800,000 in value per annum for the last five years. The 1961–62 production was valued at only £658,571.

The *Petroleum (Prospecting and Mining) Ordinance 1951–1961* has facilitated the carrying out of geological surveys and prospecting activities generally. There are, however, no prospecting permits for oil current at the present time.

## § 5. Trade, Transport and Communication

1. **Imports and Exports.**—(i) *Total Values.* The table below summarizes the values of imports and exports for the years 1956–57 to 1960–61.

### TERRITORY OF NEW GUINEA: IMPORTS AND EXPORTS

(£)

Particulars	1956–57	1957–58	1958–59	1959–60	1960–61
<i>Imports(a)</i> .. ..	11,020,742	11,545,880	11,938,628	12,622,354	16,803,152
<i>Exports—</i>					
Domestic exports .. ..	9,548,624	8,815,592	11,903,187	14,117,463	11,788,503
Re-exports .. ..	763,868	812,456	788,690	844,893	928,386
<i>Total Exports</i> .. ..	10,312,492	9,628,048	12,691,877	14,962,356	12,716,889

(a) Includes outside packages.

(ii) *Imports.* The following table summarizes the countries of origin of imports.

**TERRITORY OF NEW GUINEA: COUNTRY OF ORIGIN OF IMPORTS**  
(£)

Country of origin	1956-57	1957-58	1958-59	1959-60	1960-61
Australia .. .. .	7,327,966	7,051,240	7,721,687	7,836,181	9,741,714
Germany (Federal Republic) ..	181,370	245,260	296,007	286,545	511,325
Hong Kong .. .. .	421,191	482,085	521,455	745,040	1,050,158
India .. .. .	116,006	145,865	170,687	139,720	257,170
Indonesia .. .. .	462,091	632,274	500,814	629,332	788,183
Japan .. .. .	478,364	790,436	703,058	945,853	1,246,878
United Kingdom .. .. .	701,746	766,091	775,654	857,968	1,451,073
United States of America .. ..	785,611	790,151	651,024	688,035	965,060
Other countries .. .. .	444,636	548,610	478,206	493,680	791,591
<b>Total .. .. .</b>	<b>10,918,981</b>	<b>11,452,012</b>	<b>11,818,592</b>	<b>12,622,354</b>	<b>16,803,152</b>

(a) Includes outside packages.

(iii) *Exports.* (a) *Countries of Destination.* The countries of destination of exports from New Guinea are shown below.

**TERRITORY OF NEW GUINEA: COUNTRY OF DESTINATION OF EXPORTS**  
(£)

Country of destination	1956-57	1957-58	1958-59	1959-60	1960-61
Australia .. .. .	4,923,756	4,956,187	5,806,798	6,150,483	5,494,956
United Kingdom .. .. .	4,556,808	3,686,900	4,435,284	5,371,634	5,013,038
Other countries .. .. .	831,928	984,961	2,449,795	3,440,239	2,208,895
<b>Total .. .. .</b>	<b>10,312,492</b>	<b>9,628,048</b>	<b>12,691,877</b>	<b>14,962,356</b>	<b>12,716,889</b>

(b) *Principal Commodities.* The following table provides details of the value of the principal domestic exports for the same years.

**TERRITORY OF NEW GUINEA: PRINCIPAL DOMESTIC EXPORTS**  
(£)

Commodity	1956-57	1957-58	1958-59	1959-60	1960-61
Copra .. .. .	4,706,142	3,673,687	4,451,148	4,763,793	4,080,590
Other coconut products .. .. .	1,441,187	1,649,503	2,933,110	4,160,072	2,644,813
Cocoa beans .. .. .	454,463	814,633	1,468,572	1,652,132	1,636,060
Coffee beans .. .. .	179,510	222,794	448,869	709,445	1,094,104
Peanuts .. .. .	48,701	138,146	286,684	273,797	278,691
Gold .. .. .	1,225,447	851,506	736,354	632,729	680,224
Shell (marine) .. .. .	220,361	68,460	68,174	71,609	34,427
Timber .. .. .	256,286	235,247	316,292	360,769	260,496
Plywood .. .. .	919,478	1,023,365	1,027,748	1,254,734	865,610
Veneer .. .. .	1,036	6,649	3,299	41,136	38,051
Other .. .. .	96,013	131,602	162,937	197,247	175,437
<b>Total .. .. .</b>	<b>9,548,624</b>	<b>8,815,592</b>	<b>11,903,187</b>	<b>14,117,463</b>	<b>11,788,503</b>

2. **Shipping.**—Regular passenger and freight services operate between Australia, Papua and the Territory of New Guinea. Vessels trading between Australia and the East and also some on voyages to the United Kingdom and to North America call at Territory ports. Coastal and inter-island shipping services are maintained by vessels operating from the principal ports of the Territory. Shipping within the Territory is regulated by the *Shipping Ordinance* 1951–1960, and the Coastal Shipping, Ports and Harbours Regulations.

Main ports of call for oversea vessels are Lae, Madang and Wewak (mainland), Rabaul (New Britain), Kavieng (New Ireland), Lorengau (Manus), and Kieta (Bougainville). Ports proclaimed under the Coastal Shipping, Ports and Harbours Regulations for the service of local vessels are, in addition to the main ports above-mentioned, Salamaua, Aitape and Vanimo (mainland), Gasmata and Talasea (New Britain), Namatanai (New Ireland), and Buka Passage (Bougainville).

There are no inland waterways and the natural river system is not generally suitable for vessels except those of small tonnage.

In 1960–61, 247 British vessels and 111 vessels of other nationalities called at Territory ports and discharged 189,414 tons of cargo and loaded 147,250 tons. Corresponding figures for 1959–60 were 186, 83, 154,933 and 159,163 respectively.

3. **Other Forms of Transport and Communication.**—There are no railways in New Guinea, but a road construction programme is being undertaken progressively to assist the economic development of the Territory. Road transport services operate in the main towns and on the trunk roads linking Rabaul and Kokopo; Lae, Bulolo and Wau; Kavieng and Namatanai; and on the network in the Eastern and Western Highland Districts centred on Goroka and Mt. Hagen. The total mileage of roads in the Territory of New Guinea at 30th June, 1961, was 4,923, of which 1,948 were suitable for heavy and medium traffic.

Air services link the Territory with Papua, Australia, Western New Guinea and the British Solomon Islands. There were 151 aerodromes and seaplane alighting areas in New Guinea at 30th June, 1961, and of these 15 were controlled by the Department of Civil Aviation, 56 by the Administration, and 79 by private interests, and one by the Royal Australian Navy.

Telephone services operate in the main centres. Radio telephone trunk circuits link Port Moresby with Lae, Rabaul and Madang, and service is available from subscribers' telephones in Port Moresby, Lae and Rabaul, and from the Post Office at Madang. Nine zone or group centres for radio telegraph communication with out-stations have been established at Lae, Rabaul, Kavieng, Lorengau, Madang, Mt. Hagen, Wewak, Sohano and Goroka. From these centres, radio telegraph services are also available to 111 out-stations.

## § 6. Education and Health

1. **Education.**—Education in the Territory is provided by the Administration and various Mission organizations. Schools for indigenes have also been established by Native Village Councils. The *Education Ordinance* 1952–1957 enables the Administrator to establish an education advisory board, district education committees and European and native schools, and to grant financial aid for educational purposes. European teachers are recruited from Australia, and native teachers are trained in the Territory by the Administration and the Missions. During the year ended 30th June, 1961, 247 schools were maintained by the Administration for 19,932 children, of whom 1,119 were Europeans, 340 Asians, 127 of mixed race and 18,346 indigenes. The total number of pupils in the various grades of mission schools was 113,247, of whom there were 357 Europeans, 16 Asians and 329 of mixed race. To assist the educational work of the Missions, the Administration provides expert advice, educational equipment, and text-books. In addition, the sum of £283,095 was distributed among the Missions as grants-in-aid during the year ended 30th June, 1961.

For details of the missions operating in the Territory, *see* Official Year Book No. 48 and earlier issues.

2. **Health.**—The cases treated in hospital are mainly malaria, pneumonia, tropical ulcers, bronchitis, tubercular infections and tuberculosis, skin infections and confinements. The Department of Public Health is engaged in combating diseases with a staff of fully-trained medical officers, medical assistants and orderlies in native hospitals. Its staff also supervises hospitals on plantations. It has facilities for research in tropical medicine, and schemes for training indigenes as medical orderlies and nurses. At 30th June, 1961, there were 73 Administration hospitals, including three Hansende colonies, two tuberculosis hospitals and one Hansende and tuberculosis hospital. The Missions have established an additional 80 hospitals, including three Hansende colonies and one tuberculosis hospital. There are 1,290 village aid posts or medical centres (274 conducted by Missions) and 475 maternity and child welfare centres (82 provided by Missions). The Missions staff their own medical establishments but receive financial assistance from the Administration, which also provides much of their medical stores and supplies.

### § 7. Finance

The principal items of revenue and expenditure for the Territory of New Guinea during the years 1957–58 to 1961–62 are shown in the following table.

#### TRUST TERRITORY OF NEW GUINEA: REVENUE AND EXPENDITURE (£)

Item	1957–58	1958–59	1959–60	1960–61	1961–62
REVENUE					
Commonwealth grant ..	6,188,821	6,706,373	7,859,921	9,281,595	10,114,366
Customs duties(a) ..	1,894,125	2,415,514	1,699,039	1,599,298	1,781,050
Income tax ..	..	..	930,405	1,211,584	962,956
All other ..	1,031,901	1,139,859	1,195,667	1,318,559	1,449,520
<b>Total Revenue ..</b>	<b>9,114,847</b>	<b>10,261,746</b>	<b>11,685,032</b>	<b>13,411,036</b>	<b>14,307,892</b>
EXPENDITURE					
Public health ..	1,225,650	1,256,924	1,449,560	1,644,306	1,844,215
Native affairs ..	641,078	713,902	801,832	871,085	948,503
Education ..	637,238	775,429	873,159	1,286,235	1,560,054
Police ..	237,893	264,751	404,793	459,703	535,688
Agriculture, stock and fisheries	389,552	449,334	552,375	627,431	680,851
Posts and telegraphs ..	361,444	395,679	446,519	516,499	563,253
Trade and industry ..	125,579	141,369	144,569	168,722	179,437
Forestry ..	239,908	257,112	282,786	310,435	305,161
Public works department ..	362,116	248,561	253,472	315,503	256,538
Maintenance ..	885,944	955,891	1,204,329	1,319,104	1,551,346
Capital works and assets	2,063,908	2,566,358	2,825,600	b 3,122,576	b 2,803,782
Other ..	1,944,537	2,236,436	2,446,038	3,129,769	3,369,500
<b>Total Expenditure ..</b>	<b>9,114,847</b>	<b>10,261,746</b>	<b>11,685,032</b>	<b>b13,771,368</b>	<b>b14,598,328</b>

(a) Includes Harbour Dues and Wharfrage.  
£360,332 in 1960–61 and £290,436 in 1961–62.

(b) Includes expenditure chargeable to Loan Fund,

For information on the finances of the combined Territory administration *see* Papua and New Guinea, § 2, page 145.



## TRUST TERRITORY OF NAURU

1. **General.**—Nauru is an oval-shaped atoll about 12 miles in circumference, having an area of about 5,263 acres, of which approximately two-thirds is phosphate-bearing. It is situated in latitude 0° 32' S. and longitude 166° 55' E. Portion of the island between the sandy beach and the coral cliffs is fertile, and it is there that most of the Nauruans reside. With the exception of a small fringe around an inland lagoon, the plateau which contains the phosphate deposits possesses few food plants and is uninhabited, but portion of the area has been planted with fruit trees. The system of land tenure is governed by an old custom, and, with the exception of small allotments held by the Government, the British Phosphate Commissioners, and the Missions, the whole of the island is owned by individual natives. The temperature range is from 76° F. at night to 94° F. during the day and the average humidity about 80 per cent. Normally the rainfall is comparatively low for islands of the Pacific, the annual average for twenty years from 1920 to 1940 being 80.5 inches. However, falls as high as 181.76 inches during 1940 and as low as 12.29 inches during 1950 have been recorded.

2. **History.**—The island, discovered by Captain Fearn in 1798, was annexed by Germany in 1888, and prior to 1914 was part of the protectorate of German New Guinea.

In November, 1914, Nauru was occupied by a detachment from the Australian Naval and Military Expedition at Rabaul, and it was included in the cession of colonies made by Germany in 1919 to the Allied and Associated Powers, whose representatives agreed that a mandate for its administration should be conferred upon His Britannic Majesty. The mandate was confirmed by the Council of the League of Nations on 17th December, 1920. On 2nd July, 1919, the British, Australian and New Zealand Governments agreed that the administration (which, since 1915, had been in the charge of an official appointed by the British Colonial Office) should be vested in an Administrator, who took up duty in June, 1921. The agreement between the three Governments was approved by the Commonwealth Parliament in the *Nauru Island Agreement Act* 1919 and is shown in the Schedule to that Act. A supplementary agreement concerning Nauru was drafted in May, 1923, and ratified by the Commonwealth Parliament by the *Nauru Island Agreement Act* 1932.

On 25th August, 1942, nine months after the outbreak of the war in the Pacific, the island was occupied by Japanese forces and communications with Nauru ceased. It was re-occupied by a joint Australian Naval and Military Force on 14th September, 1945, and civil administration was re-established on 1st November, 1945.

3. **Trusteeship Agreement.**—On 1st November, 1947, the General Assembly of the United Nations approved a Trusteeship Agreement for the Territory of Nauru submitted by the Governments of Australia, New Zealand, and the United Kingdom in substitution for the terms of the mandate under which the Territory had been administered. This Agreement designates the Governments of Australia, New Zealand, and the United Kingdom as the Joint Administering Authority, with the Government of Australia continuing, on behalf of the Administering Authority, to exercise full powers of legislation, administration and jurisdiction in and over the Territory. The terms of the Agreement were given in Official Year Book No. 39, pages 370-1.

4. **Administration.**—The administration of the island is vested in an Administrator, who is obliged to conform to instructions issued by the Government which appointed him. The Administrator is advised on matters affecting the Nauruan community by the Nauru Local Council, consisting of nine Nauruan Councillors elected by adult suffrage. This Council also carries out works and supplies certain services for the Nauruan community, and acts as the Board of Directors of the Nauru Co-operative Society. Until the Government of Australia ceases to exercise full powers of legislation, administration, and jurisdiction in and over the Territory on behalf of the Administering Authority in pursuance of Article 4 of the Trusteeship Agreement, all ordinances made by the Administrator are subject to confirmation or disallowance by the Governor-General of Australia acting on the advice of the Federal Executive Council. All administration expenses are met from local revenue and phosphate royalties.

5. *Population.*—The Nauruan component of the population numbered about 1,100 in 1921, but had grown to more than 1,800 before the Japanese invasion in August, 1942. In 1946, it numbered less than 1,400, but by 30th June, 1961, had risen to 2,405. Chinese have, for many years, formed a considerable part of the population of Nauru, but their numbers are not as great as formerly, and at 30th June, 1961, they amounted to 715. The number of other Pacific Islanders in the early 1920's was almost 300, but they subsequently decreased, then rose again, and at 30th June, 1961, there were 1,063. The European population after 1921 fluctuated, but with a generally upward trend, between one and two hundred, and in recent years has gradually increased, reaching 409 in 1961. The total population of Nauru at the Census of 30th June, 1961, was 3,019 males, 1,594 females, 4,613 persons.

6. *Phosphate Deposits.*—(i) *General.* From 1906 to 1919, the deposits were worked by the Pacific Phosphate Company, which also worked the deposits on Ocean Island (about 165 miles east of Nauru and part of the Gilbert and Ellice Islands Colony administered by the Colonial Office). The quantity remaining on Nauru has been estimated at about 64 million tons, and the exports average 85 per cent. to 88 per cent. of tricalcium phosphate.

The interests of the Pacific Phosphate Company in the two islands (though not in other islands in the Pacific in which it had workings) were bought by the British, Australian and New Zealand Governments on 25th June, 1920, for £3,500,000, the purchase money being contributed in the proportions of 42, 42 and 16 per cent. respectively. The Agreement of 2nd July, 1919, provides for the working of the deposits by three British Phosphate Commissioners, one appointed by each Government, and the three countries are entitled to receive the output in the same proportions of 42, 42 and 16 per cent.

(ii) *Royalty on Phosphate.* Under an agreement between the British Phosphate Commissioners and the Nauruan landowners, a royalty of 1s. 6d. for each ton of phosphate exported has been payable since 1st July, 1953. As from 1st July, 1960, this rate was increased to 3s. 7d. a ton made up as follows:—

- 10d. to the Nauru Royalty Trust Fund to be used for the benefit of Nauruans;
- 1s. 9d. to the landowner, being an immediate payment of 1s. 1d. a ton, and 8d. a ton to be invested on his account;
- 1s. to the Nauruan Community Long Term Investment Fund.

From 1st July, 1957, the lump sums payable to landowners from whom phosphate-bearing lands are leased were also increased to £60 an acre.

(iii) *Nauru and Ocean Island Phosphate Industry.* Exports of phosphate from Nauru and Ocean Island in 1960–61 amounted to 1,338,681 tons (including Ocean Island 211,221 tons), 59 per cent. to Australia, 29 per cent. to New Zealand and 12 per cent. to the United Kingdom. During the five years ended 30th June, 1961, an amount of 6,218,262 tons of phosphate was exported.

Receipts from the sale of phosphate in 1960–61 amounted to £3,901,710, and the f.o.b. cost, including interest on capital, sinking fund, etc., costs, etc., to £3,897,917.

At 30th June, 1961, the capital indebtedness of the British Phosphate Commissioners to the partner Governments amounted to £3,170,937.

Apart from a limited number of Europeans, the employees of the Commissioners are Chinese and Pacific Islanders engaged under one year contracts. Increasing numbers of Nauruans are being employed, mainly in trade capacities.

7. *Trade.*—The *Customs Tariff* of Nauru provides for the free admission of all goods other than cigars, cigarettes, tobacco, spirits, wines, beer, cider and perry. Articles imported by the Administration for its own use and spirits for scientific purposes are exempt. The tariff rates apply to all countries alike. In 1960–61, imports were valued at £1,463,236 and exports, 1,338,681 tons of phosphate, at £2,945,098. Of the total imports in 1960–61, Australia supplied 81 per cent. valued at £1,184,468; the balance came mainly from Hong Kong, New Zealand and the United Kingdom.

In 1960-61, 783,961 tons of phosphate were exported to Australia, 363,520 tons to New Zealand and 191,200 tons to the United Kingdom.

8. **Transport.**—There is no regular air service to Nauru, but when the need arises charter flights are made to the island.

There is relatively frequent communication by sea with the island. Most of the vessels are run or chartered by the British Phosphate Commissioners for the carriage of phosphate. Many of them also provide for the carriage of passengers and other cargo as required. The total calls by vessels were 148 in 1960-61.

9. **Health.**—Cases of the usual diseases known in the Pacific occur, but the health of all sections of the population is generally satisfactory. An area has been set apart for the segregation of sufferers from Hansen's disease, and the latest methods of treatment are applied. The total number of persons receiving treatment at 30th June, 1961, was 49, of whom, however, only five were in segregation at the Hansenide colony. Three hospitals are maintained on the island, one by the Administration for Nauruans, and two by the British Phosphate Commissioners, one for European and one for non-European employees. The Administration also conducts eleven maternity and child health centres. A regular anti-mosquito campaign is conducted. Steps have been taken by the authorities to improve the water supply and to provide efficient sanitation generally. Every Nauruan is required to undergo medical examination at intervals of three months.

10. **Education.**—The Administration assumed full responsibility for education on 1st October, 1923. Prior to that date, the education of native children was undertaken by the Missions, which were subsidized by the Administration. There are three primary schools, one each for European, Nauruan and Gilbertese students, one Nauruan secondary school and one mission school providing primary and secondary classes. Primary education only is provided for European children, allowances being provided to those who proceed to secondary schools in Australia. At 30th June, 1961, 666 Nauruans, 98 other Pacific Islanders, 8 Chinese and 50 Europeans were enrolled in the primary schools, and 207 at the two secondary schools.

The curriculum is based generally on that used in Australian schools, and the teaching is generally in English. Education is compulsory for Nauruan children from six to sixteen years of age. At 30th June, 1961, 38 Nauruans were studying in Australia. Of these, 26 were at secondary schools, and the remainder were receiving vocational training. Twenty-three held Administration scholarships, six were Administration cadets, and the remaining nine were privately sponsored. In addition to these, there was one student at the Central Medical School, Suva, one private student in New Zealand, two Police Force trainees in Fiji and three apprentices in Victoria.

11. **Judiciary.**—The District Court is a court of record and consists of such magistrates as the Administrator appoints. Additionally, there is the Central Court which, as a superior court of record, consists of such judges or magistrates as are appointed and which, *inter alia*, may hear and determine appeals from judgments of the District Court. A Court of Appeal comprising a judge appointed by the Administrator has also been constituted with jurisdiction to hear and determine appeals from judgments of the Central Court.

12. **Revenue and Expenditure.**—The revenue of the Administration for the year 1960-61 amounted to £490,233 and expenditure to £486,214.

Of the revenue, payments by the British Phosphate Commissioners amounted to £470,667, post office and radio receipts, £9,572, and import duties, £4,362. Main items of expenditure were administration, £138,578, miscellaneous services (health, education, etc.), £167,520 and capital works and services, £86,919.

## TERRITORY OF HEARD ISLAND AND McDONALD ISLANDS

These islands, about 2,500 miles south-west of Fremantle, were transferred from the United Kingdom to Australia as from 26th December, 1947. The laws of the Australian Capital Territory were declared to be in force in the Territory of Heard Island and McDonald Islands by the *Heard and McDonald Islands Act* 1953.

In December, 1947, an Australian scientific station was established on Heard Island, and meteorological investigations were conducted until the station was closed in March, 1955, following the establishment of Mawson station on the Antarctic mainland. Heard Island is about 27 miles long and 13 miles wide. The McDonald Islands are 26 miles to the west of Heard Island. They are small, rocky and precipitous.

## AUSTRALIAN ANTARCTIC TERRITORY

An Imperial Order in Council of 7th February, 1933, placed under Australian authority all the islands and territories other than Adelie Land situated south of 60° S. lat. and lying between 160° E. long. and 45° E. long. The Order came into force with a Proclamation issued by the Governor-General on 24th August, 1936, after the passage of the *Australian Antarctic Territory Acceptance Act* 1933. The boundaries of Adelie Land were definitively fixed by a French Decree of 1st April, 1938, as the islands and territories south of 60° S. lat. lying between 136° E. long. and 142° E. long. The *Australian Antarctic Territory Act* 1954 declared that the laws in force in the Australian Capital Territory are, so far as they are applicable and are not inconsistent with any ordinance made under the Act, in force in the Australian Antarctic Territory.

On 13th February, 1954, the Australian National Antarctic Research Expeditions (A.N.A.R.E.) established a base on MacRobertson Land at latitude 67° 36' S. and longitude 62° 53' E. The base was named Mawson in honour of the late Sir Douglas Mawson and was the first permanent Australian station to be set up on the Antarctic continent. Meteorological and other scientific research is conducted at Mawson, which is the centre for coastal and inland survey expeditions.

A second Australian scientific research station was established on the coast of Princess Elizabeth Land on 13th January, 1957, at latitude 68° 34' 36" S. and longitude 77° 58' 36" E. The station was named Davis in honour of Captain John King Davis of Melbourne, who commanded a number of famous Antarctic ships. In February, 1959, the Australian Government accepted from the United States Government custody of Wilkes Station, which was established by the United States on 16th January, 1957, on Vincennes Bay, at latitude 66° 15' S. and longitude 110° 33' E. The station was named in honour of Lieut. Charles Wilkes, who commanded the 1838-40 United States expedition to the area. Scientists from both countries participate in the programme of research at Wilkes. A.N.A.R.E. have also operated a station, since the 1947-48 Antarctic season, at Macquarie Island, approximately 850 miles south-east of Hobart. Macquarie Island is a dependency of the State of Tasmania.

On 1st December, 1959, Australia signed the Antarctic Treaty with Argentina, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, U.S.S.R., United Kingdom and the United States of America. The Treaty reserves the Antarctic area south of 60° S. latitude for peaceful purposes, provides for international co-operation in scientific investigation and research, and preserves, for the duration of the Treaty, the *status quo* with regard to territorial sovereignty, rights and claims. The Treaty entered into force on 23rd June, 1961. Since then, the 12 Antarctic Treaty powers have held two consultative meetings under the Treaty, the first at Canberra in July, 1961, and the second at Buenos Aires in July, 1962. The third will be held in Brussels on a date to be fixed.

## TERRITORY OF COCOS (KEELING) ISLANDS

1. **General.**—The Cocos (Keeling) Islands, two separate atolls comprising some 27 small coral islands with a total area of about five square miles, are situated in the Indian Ocean in latitude 12° 5' S. and longitude 96° 53' E. They lie some 1,720 miles north-west of Perth and 2,290 miles almost due west of Darwin, while Johannesburg is some 3,800 miles further distant to the south-west, and Colombo is 1,400 miles to the north-west of the group.

The main islands of the Territory are West Island, the largest, about 6 miles from north to south, on which is the aerodrome and most of the European community; Home Island, the head-quarters of the Clunies-Ross Estate; Direction Island, on which is situated the Cable and Wireless Station and the Department of Civil Aviation's Marine Base; and Horsburgh Island. North Keeling Island, which forms part of the Territory, lies about 15 miles to the north of the group and has no inhabitants.

Main settlements are on West Island, Home Island and Direction Island. The group of atolls is low-lying, flat and thickly covered by coconut palms, and surrounds a lagoon which has a harbour in the northern part but which is extremely difficult for navigation.

The climate is equable and pleasant, usually being under the influence of the south-east trade winds for about three-quarters of the year. However, the winds vary at times, and meteorological reports from the Territory are particularly valuable to those engaged in forecasting for the eastern Indian Ocean. The temperature varies between 70° and 89° F., and the average rainfall is 80 inches. There are occasional violent storms. The worst cyclone in the recorded history of the islands was in 1909, when about 400,000 coconut palms were uprooted or decapitated and the accompanying tidal wave left only five buildings standing.

The population at 30th June, 1961, was 606 (333 males and 273 females).

2. **History.**—The islands were discovered in 1609 by Captain William Keeling of the East India Company. They were uninhabited and remained so until 1826 when the first settlement was established on the main atoll by an Englishman, Alexander Hare, who quitted the islands in about 1831. In the meantime, a second settlement was formed on the main atoll by John Clunies-Ross, a Scottish seaman and adventurer, who landed with several boat-loads of Malay seamen. In 1857, the islands were annexed to the Crown and formally declared part of the British Dominions, and in 1878 responsibility for their supervision was transferred from the Colonial Office to the Government of Ceylon, and subsequently, in 1882, to the Government of the Straits Settlements. By indenture in 1886, Queen Victoria granted the land comprised by the islands to John Clunies-Ross in perpetuity, and until 1946 the patriarchal rule of the head of the Clunies-Ross family was recognized. The head of the family had semi-official status as resident magistrate and representative of the Government. However, in 1946, when the islands became a dependency of the Colony of Singapore, a Resident Administrator responsible to the Governor of Singapore was appointed.

On 23rd November, 1955, the Cocos Islands ceased to form part of the Colony of Singapore and were placed under the authority of the Commonwealth of Australia. The transfer was effected by an Order in Council made by Her Majesty Queen Elizabeth the Second under the Imperial Act entitled the *Cocos Islands Act 1955* and by the *Cocos (Keeling) Islands Act 1955* of the Commonwealth whereby the islands were declared to be accepted by the Commonwealth as a Territory under the authority of the Commonwealth to be known as the Territory of Cocos (Keeling) Islands.

3. **Administration.**—Responsibility for the administration of the Territory rests with the Minister for Territories. The first Official Representative was appointed on 23rd November, 1955, to take charge of the local administration of the Territory. Under the *Official Representative Ordinance* 1955 of the Territory, the Official Representative is given such powers and functions in relation to the Territory as are delegated to him by the Minister under the *Cocos (Keeling) Islands Act* 1955–1958 or are otherwise conferred on him under that Act or by or under any other law of the Territory. The laws of the Colony of Singapore which were in force in the islands immediately before the date of the transfer were, with certain exceptions, continued in force by the *Cocos (Keeling) Islands Act* 1955–1958. They may be amended or repealed by Ordinances made under the provisions of that Act which empower the Governor-General to make Ordinances for the peace, order and good government of the Territory.

4. **Transport.**—There is an international airport at West Island under the control of the Department of Civil Aviation. This is a re-fuelling point for aircraft of Qantas Empire Airways Ltd., which operates a weekly service between Australia and South Africa, and South African Airways which operates a fortnightly service on the same route. Although there is no regular shipping service, vessels from Australia and Singapore call at intervals.

#### TERRITORY OF CHRISTMAS ISLAND

1. **General.**—Christmas Island is an isolated bank, situated in the Indian Ocean in latitude 10° 25' 19" S., longitude 105° 42' 57" E. It is approximately 220 miles south from Java Head, at the south entrance to Sunda Strait, 810 miles from Singapore and 1,625 miles from Fremantle. Christmas Island covers an area of about 55 square miles. It consists of a central plateau at about 600 to 800 feet with several prominent rises up to 1,170 feet. The plateau descends to the sea in a series of steep slopes alternating with terraces, the last dropping in a cliff of 200 to 300 feet to a shore terrace, terminating in a sea cliff of 10 to 150 feet, which is continuous round the island except in a few places, the chief of which is Flying Fish Cove where the shore is formed of coral shingles.

The principal settlement is at Flying Fish Cove which is also the only known anchorage. Vessels are moored close inshore opposite two piers with extension conveyors, by which means direct loading to ships is carried out. The main installations of the phosphate industry are located here, together with the European married quarters and the Chinese and Malay settlements. There is a secondary settlement with maintenance shops, etc., at South Point, and several other small settlements or camps across the central plateau and at the small pumping plants at springs and wells.

The climate is healthy and pleasant, the prevailing winds being from the south-east to east-south-east from May to December, but from then to April (the wet season) they occasionally shift round from north to north-east. The average yearly rainfall is about 80 inches with a marked summer incidence. The porous nature of the ground prevents the formation of pools of water, but there are several good springs which maintain an adequate supply of fresh water for the small population and the installations. The mean average temperature is about 80° and does not vary greatly throughout the year.

The population of Christmas Island at 30th June, 1961, was 3,099 (1,963 males and 1,136 females).

**2. History and Administration.**—The first mention of Christmas Island appears in a map published in Holland in 1666, in which it is called *Moni Island*, although it is believed that Captain William Mynors of the East India Company had sighted the island on Christmas Day in 1643 and had named it accordingly.

In June, 1888, it was annexed by Captain H. W. May of H.M.S. *Imperieuse* as part of the British Dominions and placed under the supervision of the Straits Settlements Government for administrative purposes. Following upon this, a small settlement was established at Flying Fish Cove by Mr. G. Clunies-Ross of Cocos (Keeling) Islands. In February, 1891, Sir John Murray and Mr. Clunies-Ross were granted a 99-year lease of the Island. This lease was transferred to the Christmas Island Phosphate Co. Ltd. in 1897, following the discovery of large deposits of phosphate of lime on the Island. In 1900, Christmas Island was incorporated for administrative purposes with the Settlement of Singapore and the laws of Singapore were generally applied to the Island.

The *Straits Settlements (Repeal) Act* 1946, passed by the United Kingdom, repealed the Act establishing the whole of the Straits Settlements as a single colony. Subsequently the Singapore Colony Order in Council, in 1946, decreed that the Island of Singapore and its dependencies, the Cocos or Keeling Islands and Christmas Island should be governed and administered as a separate Colony and called the Colony of Singapore. From 1st January, 1958, pending transfer to Australia, Christmas Island was administered by the United Kingdom as a separate Crown Colony. The Island was transferred to the Commonwealth of Australia on 1st October, 1958, by the *Christmas Island Act* 1958, and is now administered as a Territory under the authority of the Commonwealth. Responsibility for the administration and government of the Territory rests with the Minister for Territories, and day to day affairs on the Island are administered by an Official Representative under delegation from the Minister. The laws which were in force in the Island at 30th September, 1958, were continued as the laws of the Territory after its transfer to Australia on 1st October.

**3. Phosphate Deposits.**—The only commercial activity carried out is the mining of phosphate. The British Phosphate Commissioners act as managing agents for the Christmas Island Phosphate Commission.

There are three principal phosphate deposits on the Islands, the largest that now being worked at South Point. This field is situated on the 600 feet to 800 feet level and is approximately 11 miles from the drying and shipping plant at Flying Fish Cove. The present output is about 400,000 tons annually. In addition, about 30,000 tons of phosphate dust are supplied annually to Malaya.

There is little prospect of any economic development outside the phosphate industry.

**4. Transport.**—Transport to and from the island is maintained by vessels operated under charter by the Christmas Island Phosphate Commission. One vessel makes regular trips between Christmas Island and Singapore, and other vessels carry phosphate to Fremantle and other Australian ports.

## EXTERNAL TERRITORIES: RESULTS OF 1961 CENSUS OF POPULATION

The following tables contain information obtained from the results of the Population Census of 30th June, 1961, for each of the external Territories of Norfolk Island, Papua, New Guinea, Nauru, Cocos (Keeling) Islands, and Christmas Island. It relates to the age distribution, conjugal condition, birthplaces, religions, and industrial pursuits of the population. Comparative figures are shown from the 1954 Census. Particulars for Papua and New Guinea relate to the non-indigenous population only. Information was also collected on period of residence, nationality, race, occupational status, and dwellings, and is available in the results of the Census issued in separate Census publications.

Information obtained at the 1961 Census in respect of the internal Territories is shown in summarized form in Chapter IX. Population, of this Year Book.

## § 1. Norfolk Island

TERRITORY OF NORFOLK ISLAND: AGE DISTRIBUTION OF THE  
POPULATION, CENSUSES, 1954 AND 1961

Age last birthday (years)	Census, 30th June, 1954			Census, 30th June, 1961		
	Males	Females	Persons	Males	Females	Persons
0-4 .. .. .	45	52	97	48	28	76
5-9 .. .. .	40	39	79	43	43	86
10-14 .. .. .	32	29	61	31	39	70
15-19 .. .. .	13	17	30	10	15	25
20-24 .. .. .	19	22	41	18	19	37
25-29 .. .. .	35	27	62	20	25	45
30-34 .. .. .	31	32	63	26	28	54
35-39 .. .. .	24	29	53	31	30	61
40-44 .. .. .	38	40	78	25	25	50
45-49 .. .. .	34	29	63	34	28	62
50-54 .. .. .	29	32	61	25	31	56
55-59 .. .. .	28	28	56	28	26	54
60-64 .. .. .	32	23	55	22	24	46
65-69 .. .. .	23	28	51	18	16	34
70-74 .. .. .	25	17	42	10	16	26
75-79 .. .. .	18	10	28	18	15	33
80-84 .. .. .	7	9	16	10	9	19
85-89 .. .. .	4	1	5	4	4	8
90-94 .. .. .	1	..	1	..	2	2
<b>Total</b> .. .. .	<b>478</b>	<b>464</b>	<b>942</b>	<b>421</b>	<b>423</b>	<b>844</b>
Under 21 .. .. .	135	142	277	136	127	263
21-64 .. .. .	265	257	522	225	234	459
65 and over .. .. .	78	65	143	60	62	122
<b>Total</b> .. .. .	<b>478</b>	<b>464</b>	<b>942</b>	<b>421</b>	<b>423</b>	<b>844</b>

TERRITORY OF NORFOLK ISLAND: CONJUGAL CONDITION OF THE  
POPULATION, CENSUSES, 1954 AND 1961

Conjugal condition	Census, 30th June, 1954			Census, 30th June, 1961		
	Males	Females	Persons	Males	Females	Persons
Never married—						
Under 15 years of age .. .. .	117	120	237	122	110	232
15 years of age and over .. .. .	74	65	139	66	59	125
<b>Total</b> .. .. .	<b>191</b>	<b>185</b>	<b>376</b>	<b>188</b>	<b>169</b>	<b>357</b>
Married .. .. .	225	215	440	186	190	376
Married but permanently separated .. .. .	12	8	20	8	6	14
Widowed .. .. .	43	46	89	28	47	75
Divorced .. .. .	7	9	16	11	11	22
Not stated .. .. .	..	1	1	..	..	..
<b>Grand Total</b> .. .. .	<b>478</b>	<b>464</b>	<b>942</b>	<b>421</b>	<b>423</b>	<b>844</b>



**TERRITORY OF NORFOLK ISLAND: BIRTHPLACES OF THE POPULATION,  
CENSUSES, 1954 AND 1961**

Birthplace	Census, 30th June, 1954			Census, 30th June, 1961		
	Males	Females	Persons	Males	Females	Persons
<b>Australasia—</b>						
Norfolk Island .. .. .	218	214	432	217	179	396
Australia .. .. .	88	98	186	91	96	187
New Guinea .. .. .	..	..	..	1	..	1
New Zealand .. .. .	101	95	196	64	90	154
<i>Total, Australasia</i> .. ..	407	407	814	373	365	738
<b>Europe—</b>						
England .. .. .	43	32	75	24	31	55
Wales .. .. .	2	..	2	5	..	5
Scotland .. .. .	6	3	9	5	4	9
Other European .. .. .	8	5	13	5	6	11
<i>Total, Europe</i> .. ..	59	40	99	39	41	80
<b>Asia</b> .. .. .	..	1	1	..	..	..
<b>Africa</b> .. .. .	1	3	4	2	3	5
<b>America—</b>						
Canada (including Newfoundland) ..	..	3	3	1	3	4
United States of America .. ..	4	2	6	3	4	7
Other American .. .. .	1	1	2	..	..	..
<i>Total, America</i> .. ..	5	6	11	4	7	11
<b>Pacific Islands—</b>						
New Hebrides .. .. .	1	3	4	1	5	6
Other Pacific Islands .. .. .	5	4	9	2	2	4
<i>Total, Pacific Islands</i> .. ..	6	7	13	3	7	10
<i>Total born outside Norfolk Island</i>	260	250	510	204	244	448
<b>Grand Total</b> .. ..	478	464	942	421	423	844

TERRITORY OF NORFOLK ISLAND: RELIGIONS OF THE POPULATION,  
CENSUSES, 1954 AND 1961

Religion	Census, 30th June, 1954			Census, 30th June, 1961		
	Males	Females	Persons	Males	Females	Persons
Christian—						
Baptist .. .. .	1	1	2	..	3	3
Catholic, Roman(a) .. .. .	27	31	58	15	26	41
Catholic(a) .. .. .	2	1	3	8	5	13
Church of England .. .. .	233	264	497	226	225	451
Congregational .. .. .	..	..	..	1	1	2
Methodist .. .. .	90	72	162	72	58	130
Presbyterian .. .. .	23	18	41	13	21	34
Protestant (undefined) .. .. .	7	5	12	3	4	7
Seventh Day Adventist .. .. .	29	32	61	33	36	69
Other (including Christian undefined)	2	2	4	2	1	3
<i>Total, Christian</i> .. .. .	<i>414</i>	<i>426</i>	<i>840</i>	<i>373</i>	<i>380</i>	<i>753</i>
Non-Christian—						
<i>Total, Non-Christian</i> .. .. .	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>
Indefinite .. .. .	5	1	6	..	..	..
No Religion .. .. .	2	1	3	2	2	4
No Reply .. .. .	57	36	93	46	41	87
<b>Grand Total</b> .. .. .	<b>478</b>	<b>464</b>	<b>942</b>	<b>421</b>	<b>423</b>	<b>844</b>

(a) So described in individual Census Schedules.

TERRITORY OF NORFOLK ISLAND: INDUSTRY OF THE POPULATION,  
CENSUSES, 1954 AND 1961

Industry group	Census, 30th June, 1954			Census, 30th June, 1961		
	Males	Females	Persons	Males	Females	Persons
Primary production .. .. .	55	3	58	87	4	91
Manufacturing .. .. .	23	3	26	13	2	15
Building and construction .. .. .	65	..	65	25	..	25
Transport and storage and communication .. .. .	33	1	34	28	2	30
Finance and property .. .. .	2	1	3	2	..	2
Commerce .. .. .	20	18	38	22	22	44
Public authority (n.e.i.) and defence services .. .. .	35	4	39	28	9	37
Community and business services (including professional) (a) .. .. .	10	11	21	10	17	27
Amusement, hotels and other accommodation, cafés, personal service, etc.	12	23	35	11	16	27
Other industries and industry inadequately described or not stated ..	18	3	21	9	4	13
<i>Total in Work Force</i> .. .. .	<i>273</i>	<i>67</i>	<i>340</i>	<i>235</i>	<i>76</i>	<i>311</i>
Persons not in work force .. .. .	205	397	602	186	347	533
<b>Grand Total</b> .. .. .	<b>478</b>	<b>464</b>	<b>942</b>	<b>421</b>	<b>423</b>	<b>844</b>

(a) Includes police, fire brigades, hospitals, medical and dental services, education, and business services.

## § 2. Papua and New Guinea

**TERRITORY OF PAPUA AND NEW GUINEA: AGE DISTRIBUTION OF THE  
POPULATION, CENSUSES, 1954 and 1961**  
(EXCLUSIVE OF INDIGENOUS POPULATION)

Age last birthday (years)	Census 30th June, 1954	Census, 30th June, 1961								
		Papua			New Guinea			Total, Papua and New Guinea		
		Persons			Persons			Persons		
		Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
0-4 .. .. .	2,219	738	707	1,445	1,164	1,057	2,221	1,902	1,764	3,666
5-9 .. .. .	1,506	527	576	1,103	857	812	1,669	1,384	1,388	2,772
10-14 .. ..	780	249	281	530	389	406	795	638	687	1,325
15-19 .. ..	544	127	167	294	229	165	394	356	332	688
20-24 .. ..	1,852	557	334	891	893	525	1,418	1,450	859	2,309
25-29 .. ..	2,767	611	449	1,060	1,082	689	1,771	1,693	1,138	2,831
30-34 .. ..	2,259	723	466	1,189	1,163	735	1,898	1,886	1,201	3,087
35-39 .. ..	1,594	709	460	1,169	983	613	1,596	1,692	1,073	2,765
40-44 .. ..	1,232	462	302	764	673	409	1,082	1,135	711	1,846
45-49 .. ..	1,011	308	204	512	524	313	837	832	517	1,349
50-54 .. ..	752	206	152	358	411	226	637	617	378	995
55-59 .. ..	506	142	76	218	293	170	463	435	246	681
60-64 .. ..	333	69	49	118	203	109	312	272	158	430
65-69 .. ..	225	26	35	61	149	68	217	175	103	278
70-74 .. ..	101	21	23	44	80	42	122	101	65	166
75-79 .. ..	46	11	13	24	43	25	68	54	38	92
80-84 .. ..	22	3	5	8	20	12	32	23	17	40
85-89 .. ..	6	1	5	6	2	1	3	3	6	9
90-94 .. ..	..	..	..	..	..	1	1	..	1	1
Total .. ..	17,755	5,490	4,304	9,794	9,158	6,378	15,536	14,648	10,682	25,330
Under 21 .. ..	5,244	1,706	1,786	3,492	2,751	2,522	5,273	4,457	4,308	8,765
21-64 .. ..	12,111	3,722	2,437	6,159	6,113	3,707	9,820	9,835	6,144	15,979
65 and over ..	400	62	81	143	294	149	443	356	230	586
Total .. ..	17,755	5,490	4,304	9,794	9,158	6,378	15,536	14,648	10,682	25,330

**TERRITORY OF PAPUA AND NEW GUINEA: CONJUGAL CONDITION OF THE  
POPULATION, CENSUSES, 1954 AND 1961**  
(EXCLUSIVE OF INDIGENOUS POPULATION)

Conjugal condition	Census, 30th June, 1954	Census, 30th June, 1961								
		Papua			New Guinea			Total, Papua and New Guinea		
		Persons			Persons			Persons		
		Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Never married—										
Under 15 years of age ..	4,505	1,514	1,564	3,078	2,410	2,275	4,685	3,924	3,839	7,763
15 years of age and over	4,998	1,557	681	2,238	2,760	954	3,714	4,317	1,635	5,952
Total .. .. .	9,503	3,071	2,245	5,316	5,170	3,229	8,399	8,241	5,474	13,715
Married .. .. .	7,296	2,172	1,860	4,032	3,594	2,861	6,455	5,766	4,721	10,487
Married but permanently separated .. ..	296	101	48	149	136	41	177	237	89	326
Widowed .. .. .	373	53	115	168	124	205	329	177	320	497
Divorced .. .. .	251	93	36	129	134	42	176	227	78	305
Not stated .. ..	36	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Grand Total ..	17,755	5,490	4,304	9,794	9,158	6,378	15,536	14,648	10,682	25,330

(a) In processing the 1961 Census data, a conjugal condition was allocated prior to tabulation in all instances where this information was not stated.

**TERRITORY OF PAPUA AND NEW GUINEA: BIRTHPLACES OF THE  
POPULATION, CENSUSES, 1954 AND 1961**

(EXCLUSIVE OF INDIGENOUS POPULATION)

Birthplace	Census, 30th June, 1954	Census, 30th June, 1961								
	Total Papua and New Guinea	Papua			New Guinea			Total, Papua and New Guinea		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
<b>Australasia—</b>										
Australia .. ..	8,827	2,945	2,406	5,351	4,050	2,780	6,830	6,995	5,186	12,181
Norfolk Island ..	3	1	1	2	4	2	6	5	3	8
Papua .. ..	1,515	1,141	1,087	2,231	127	104	231	1,271	1,191	2,462
New Guinea .. ..	3,158	107	146	253	2,176	2,038	4,214	2,283	2,184	4,467
Papua-New Guinea(a)	6	63	62	125	173	141	314	236	203	439
Nauru .. ..	6									
New Zealand .. ..	278	98	75	173	173	122	295	271	197	468
<b>Total, Australasia ..</b>	<b>13,787</b>	<b>4,358</b>	<b>3,777</b>	<b>8,135</b>	<b>6,703</b>	<b>5,187</b>	<b>11,890</b>	<b>11,061</b>	<b>8,964</b>	<b>20,025</b>
<b>Europe—</b>										
England and Wales ..	1,093	420	219	639	569	223	792	989	442	1,431
Scotland .. ..	281	88	47	135	138	47	185	226	94	320
Northern Ireland ..	16	8	3	11	13	4	17	21	7	28
Ireland, Republic of ..	22	6	5	11	10	1	11	16	6	22
Ireland (undefined) ..	75	24	10	34	39	15	54	63	25	88
Germany .. ..	341	83	25	108	301	189	490	384	214	598
Netherlands .. ..	104	61	16	77	90	60	150	151	76	227
Other .. ..	517	240	80	320	262	94	356	502	174	676
<b>Total, Europe .. ..</b>	<b>2,449</b>	<b>930</b>	<b>405</b>	<b>1,335</b>	<b>1,422</b>	<b>633</b>	<b>2,055</b>	<b>2,352</b>	<b>1,038</b>	<b>3,390</b>
<b>Asia—</b>										
China .. ..	754	14	4	18	458	172	630	472	176	648
India .. ..	85	14	12	26	63	24	87	77	36	113
Indonesia .. ..	48	24	19	43	40	13	53	64	32	96
Japan .. ..	3	5	1	6	49	1	50	54	2	56
Other .. ..	138	33	18	51	78	38	116	111	56	167
<b>Total, Asia .. ..</b>	<b>1,028</b>	<b>90</b>	<b>54</b>	<b>144</b>	<b>688</b>	<b>248</b>	<b>936</b>	<b>778</b>	<b>302</b>	<b>1,080</b>
<b>Africa .. ..</b>	<b>31</b>	<b>16</b>	<b>8</b>	<b>24</b>	<b>17</b>	<b>15</b>	<b>32</b>	<b>33</b>	<b>23</b>	<b>56</b>
<b>America—</b>										
U.S.A. .. ..	288	48	29	77	262	230	492	310	259	569
Other .. ..	56	22	4	26	33	32	65	55	36	91
<b>Total, America .. ..</b>	<b>344</b>	<b>70</b>	<b>33</b>	<b>103</b>	<b>295</b>	<b>262</b>	<b>557</b>	<b>365</b>	<b>295</b>	<b>660</b>
<b>Pacific Islands (n.e.i.) ..</b>	<b>116</b>	<b>25</b>	<b>26</b>	<b>51</b>	<b>33</b>	<b>32</b>	<b>65</b>	<b>58</b>	<b>58</b>	<b>116</b>
<b>Other .. ..</b>	<b>..</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>..</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>
<b>Grand Total .. ..</b>	<b>17,755</b>	<b>5,490</b>	<b>4,304</b>	<b>9,794</b>	<b>9,158</b>	<b>6,378</b>	<b>15,536</b>	<b>14,648</b>	<b>10,682</b>	<b>25,330</b>
<b>Born in Papua and New Guinea .. ..</b>	<b>4,673</b>	<b>1,314</b>	<b>1,295</b>	<b>2,609</b>	<b>2,476</b>	<b>2,283</b>	<b>4,759</b>	<b>3,790</b>	<b>3,578</b>	<b>7,368</b>
<b>Born outside Papua and New Guinea .. ..</b>	<b>13,082</b>	<b>4,176</b>	<b>3,009</b>	<b>7,185</b>	<b>6,682</b>	<b>4,095</b>	<b>10,777</b>	<b>10,858</b>	<b>7,104</b>	<b>17,962</b>
<b>Grand Total .. ..</b>	<b>17,755</b>	<b>5,490</b>	<b>4,304</b>	<b>9,794</b>	<b>9,158</b>	<b>6,378</b>	<b>15,536</b>	<b>14,648</b>	<b>10,682</b>	<b>25,330</b>

(a) So described in individual Census Schedules.

### TERRITORY OF PAPUA AND NEW GUINEA: RELIGIONS OF THE POPULATION, CENSUSES, 1954 AND 1961

(EXCLUSIVE OF INDIGENOUS POPULATION)

Religion	Census 30th June, 1954  Total, Papua and New Guinea	Census, 30th June, 1961									
		Papua			New Guinea			Total, Papua and New Guinea			
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Christian—											
Baptist .. ..	190	88	91	179	127	110	237	215	201	416	
Brethren .. ..	32	13	10	23	42	51	93	55	61	116	
Catholic, Roman(a) ..	3,836	1,002	768	1,770	1,847	1,334	3,181	2,849	2,102	4,951	
Catholic(a) .. ..	1,629	692	625	1,317	944	749	1,693	1,636	1,374	3,010	
Churches of Christ ..	42	17	15	32	19	23	42	36	38	74	
Church of England ..	5,178	1,725	1,413	3,138	2,199	1,461	3,660	3,924	2,874	6,798	
Congregational .. ..	328	197	188	385	31	27	58	228	215	443	
Greek Orthodox .. ..	30	20	9	29	15	1	16	35	10	45	
Lutheran .. ..	494	66	41	107	459	469	928	525	510	1,035	
Methodist .. ..	1,475	284	257	541	846	687	1,533	1,130	944	2,074	
Presbyterian .. ..	1,203	402	327	729	527	367	894	929	694	1,623	
Protestant (undefined)	237	85	58	143	96	48	144	181	106	287	
Salvation Army .. ..	10	31	29	60	6	6	12	37	35	72	
Seventh Day Adventist	244	49	35	84	144	136	280	193	171	364	
Other (including Chris- tian undefined) ..	77	87	63	150	133	125	258	220	188	408	
Total, Christian ..	15,005	4,758	3,929	8,687	7,435	5,594	13,029	12,193	9,523	21,716	
Non-Christian—											
Hebrew .. ..	10	7	2	9	17	11	28	24	13	37	
Other .. ..	101	6	3	9	61	7	68	67	10	77	
Total, Non-Christian ..	111	13	5	18	78	18	96	91	23	114	
Indefinite .. ..	47	14	11	25	32	15	47	46	26	72	
No Religion .. ..	280	66	16	82	143	37	180	209	53	262	
No Reply .. ..	2,312	639	343	982	1,470	714	2,184	2,109	1,057	3,166	
Grand Total .. ..	17,755	5,490	4,304	9,794	9,158	6,378	15,536	14,648	10,682	25,330	

(a) So described in individual Census Schedules.

### TERRITORY OF PAPUA AND NEW GUINEA: INDUSTRY OF THE POPULATION, CENSUSES, 1954 AND 1961

(EXCLUSIVE OF INDIGENOUS POPULATION)

Industry group	Census, 30th June, 1954  Total, Papua and New Guinea	Census, 30th June, 1961									
		Papua			New Guinea			Total, Papua and New Guinea			
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Primary production ..	829	308	16	324	786	36	822	1,094	52	1,146	
Mining and quarrying ..	738	41	2	43	173	19	192	214	21	235	
Manufacturing ..	772	231	43	274	517	56	573	748	99	847	
Electricity, gas, water and sanitary services (pro- duction, supply and maintenance) ..	98	74	5	79	63	6	69	137	11	148	
Building and construction	1,101	616	14	630	625	10	635	1,241	24	1,265	
Transport and storage and communication ..	1,407	365	101	466	1,182	137	1,319	1,547	238	1,785	
Finance and property ..	140	75	34	109	104	26	130	179	60	239	
Commerce ..	1,240	382	291	673	784	461	1,245	1,166	752	1,918	
Public authority (n.e.i.) and defence services ..	1,977	1,204	419	1,623	970	212	1,182	2,174	631	2,805	
Community and business services (including pro- fessional) (a) ..	1,707	541	491	1,032	1,253	848	2,101	1,794	1,339	3,133	
Amusement, hotels and other accommodation, cafés, personal service, etc. ..	194	66	73	139	78	77	155	144	150	294	
Other industries and in- dustry inadequately de- scribed or not stated ..	78	7	12	19	18	16	34	25	28	53	
Total in Work Force	10,281	3,910	1,501	5,411	6,553	1,904	8,457	10,463	3,405	13,868	
Persons not in work force	7,474	1,580	2,803	4,383	2,605	4,474	7,079	4,185	7,277	11,462	
Grand Total ..	17,755	5,490	4,304	9,794	9,158	6,378	15,536	14,648	10,682	25,330	

(a) Includes police, fire brigades, hospitals, medical and dental services, education, and business services.

## § 3. Nauru

TERRITORY OF NAURU: AGE DISTRIBUTION OF THE POPULATION,  
CENSUSES, 1954 AND 1961

Age last birthday (years)	Census, 30th June, 1954	Census, 30th June, 1961									
		Non-indi- genous	Indigenous			Non-indigenous			Total		
			Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
0-4.. ..	143	254	256	510	81	90	171	335	346	681	
5-9.. ..	110	250	229	479	58	67	125	308	296	604	
10-14.. ..	47	180	165	345	33	27	60	213	192	405	
15-19.. ..	93	53	48	101	82	11	93	135	59	194	
20-24.. ..	218	82	79	161	315	35	350	397	114	511	
25-29.. ..	257	97	85	182	279	60	339	376	145	521	
30-34.. ..	232	86	64	150	281	53	334	367	117	484	
35-39.. ..	185	70	60	130	202	38	240	272	98	370	
40-44.. ..	160	38	52	90	199	27	226	237	79	316	
45-49.. ..	93	38	32	70	133	16	149	171	48	219	
50-54.. ..	68	33	19	52	61	9	70	94	28	122	
55-59.. ..	19	30	29	59	28	4	32	58	33	91	
60-64.. ..	10	24	16	40	7	1	8	31	17	48	
65-69.. ..	4	9	11	20	2	..	2	11	11	22	
70-74.. ..	5	5	4	9	4	2	6	9	6	15	
75-79.. ..	1	..	4	4	..	..	..	..	4	4	
80-84.. ..	..	1	1	2	2	..	2	3	1	4	
85-89.. ..	..	1	..	1	1	..	1	2	..	2	
Total .. ..	1,645	1,251	1,154	2,405	1,768	440	2,208	3,019	1,594	4,613	
Under 21 .. ..	435	749	711	1,460	321	201	522	1,070	912	1,982	
21-64.. ..	1,200	486	423	909	1,438	237	1,675	1,924	660	2,584	
65 and over .. ..	10	16	20	36	9	2	11	25	22	47	
Total .. ..	1,645	1,251	1,154	2,405	1,768	440	2,208	3,019	1,594	4,613	

TERRITORY OF NAURU: CONJUGAL CONDITION OF THE POPULATION,  
CENSUSES, 1954 AND 1961

Conjugal condition.	Census, 30th June, 1954	Census, 30th June, 1961									
		Non-indi- genous	Indigenous			Non-indigenous			Total		
			Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Never married—											
Under 15 years of age	300	684	650	1,334	172	184	356	856	834	1,690	
15 years of age and over	523	214	130	344	867	33	900	1,081	163	1,244	
<i>Total .. ..</i>	<i>823</i>	<i>898</i>	<i>780</i>	<i>1,678</i>	<i>1,039</i>	<i>217</i>	<i>1,256</i>	<i>1,937</i>	<i>997</i>	<i>2,934</i>	
Married .. ..	744	304	317	621	692	212	904	996	529	1,525	
Married but permanently separated .. ..	1	9	11	20	5	3	8	14	14	28	
Widowed .. ..	55	37	44	81	28	7	35	65	51	116	
Divorced .. ..	11	3	2	5	4	1	5	7	3	10	
Not Stated .. ..	11	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	
<i>Grand Total ..</i>	<i>1,645</i>	<i>1,251</i>	<i>1,154</i>	<i>2,405</i>	<i>1,768</i>	<i>440</i>	<i>2,208</i>	<i>3,019</i>	<i>1,594</i>	<i>4,613</i>	

(a) In processing the 1961 Census data, a conjugal condition was allocated prior to tabulation in all instances where this information was not stated.

**TERRITORY OF NAURU: BIRTHPLACES OF THE POPULATION,  
CENSUSES, 1954 AND 1961**

Birthplace	Census, 30th June, 1954  Non- indi- genous	Census, 30th June, 1961									
		Indigenous			Non-indigenous			Total			
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Australasia—											
Nauru .. ..	66	1,228	1,141	2,369	95	82	177	1,323	1,223	2,546	
Australia .. ..	191	..	..	..	97	110	207	97	110	207	
Christmas Island .. ..	..	..	..	..	1	1	2	1	1	2	
New Zealand .. ..	11	..	..	..	6	9	15	6	9	15	
Papua-New Guinea .. ..	..	(a) 1	(a) 1	(a) 2	..	1	1	1	2	3	
<i>Total, Australasia ..</i>	<i>268</i>	<i>1,229</i>	<i>1,142</i>	<i>2,371</i>	<i>199</i>	<i>203</i>	<i>402</i>	<i>1,428</i>	<i>1,345</i>	<i>2,773</i>	
Europe—											
England and Wales .. ..	26	..	..	..	22	11	33	22	11	33	
Scotland .. ..	8	..	..	..	9	2	11	9	2	11	
Ireland .. ..	3	..	..	..	4	..	4	4	..	4	
Norway .. ..	..	..	..	..	28	3	31	28	3	31	
Sweden .. ..	..	..	..	..	29	..	29	29	..	29	
Other .. ..	2	..	..	..	20	5	25	20	5	25	
<i>Total, Europe ..</i>	<i>39</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>112</i>	<i>21</i>	<i>133</i>	<i>112</i>	<i>21</i>	<i>133</i>	
Asia—											
China .. ..	383	..	..	..	484	33	517	484	33	517	
Hong Kong .. ..	149	..	..	..	145	19	164	145	19	164	
Other .. ..	8	..	..	..	1	1	2	1	1	2	
<i>Total, Asia ..</i>	<i>540</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>630</i>	<i>53</i>	<i>683</i>	<i>630</i>	<i>53</i>	<i>683</i>	
Africa .. ..	3	..	..	..	..	2	2	..	2	2	
America .. ..	5	..	..	..	2	..	2	2	..	2	
Pacific Islands (n.e.i.)(b) ..	790	(a) 22	(a) 12	(a) 34	825	161	986	847	173	1,020	
<i>Total born outside Nauru ..</i>	<i>1,579</i>	<i>23</i>	<i>13</i>	<i>36</i>	<i>1,673</i>	<i>358</i>	<i>2,031</i>	<i>1,696</i>	<i>371</i>	<i>2,067</i>	
Grand Total ..	1,645	1,251	1,154	2,405	1,768	440	2,208	3,019	1,594	4,613	

(a) Members of the Nauruan Community.

(b) Predominantly Gilbert and Ellice Islands.

**TERRITORY OF NAURU: RELIGIONS OF THE POPULATION,  
CENSUSES, 1954 AND 1961**

Religion	Census, 30th June, 1954  Non- indi- genous	Census, 30th June, 1961									
		Indigenous			Non-indigenous			Total			
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Christian—											
Catholic, Roman(a) ..	269	218	161	379	263	75	338	481	236	717	
Catholic(a) .. ..	19	184	187	371	25	26	51	209	213	422	
Church of England ..	129	5	4	9	63	59	122	68	63	131	
Congregational .. ..	562	586	584	1,170	615	146	761	1,201	730	1,931	
Lutheran .. ..	..	..	..	..	36	2	38	36	2	38	
Methodist .. ..	14	1	2	3	17	15	32	18	17	35	
Presbyterian .. ..	35	..	..	..	19	18	37	19	18	37	
Protestant (undefined)	44	150	122	272	47	13	60	197	135	332	
Other (including Christian undefined) ..	14	..	..	..	6	2	8	6	2	8	
<i>Total, Christian ..</i>	<i>1,086</i>	<i>1,144</i>	<i>1,060</i>	<i>2,204</i>	<i>1,091</i>	<i>356</i>	<i>1,447</i>	<i>2,235</i>	<i>1,416</i>	<i>3,651</i>	
Non-Christian—											
<i>Total, Non-Christian</i>	2	..	..	..	1	..	1	1	..	1	
Indefinite .. ..	5	7	4	11	..	..	..	7	4	11	
No Religion .. ..	1	..	..	..	1	..	1	1	..	1	
No Reply .. ..	551	100	90	190	675	84	759	775	174	949	
Grand Total ..	1,645	1,251	1,154	2,405	1,768	440	2,208	3,019	1,594	4,613	

(a) So described in individual Census Schedules.

**TERRITORY OF NAURU: INDUSTRY OF THE POPULATION,  
CENSUSES, 1954 AND 1961**

Industry group	Census, 30th June, 1954	Census, 30th June, 1961								
	Non-indigenous	Indigenous			Non-indigenous			Total		
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Primary production ..	4	1	..	1	1	..	1	2	..	2
Mining and quarrying ..	1,045	91	..	91	1,417	12	1 429	1,508	12	1,520
Building and construction ..	..	105	..	105	13	..	13	118	..	118
Transport and storage and communication ..	2	40	..	40	74	3	77	114	3	117
Commerce ..	8	39	2	41	9	..	9	48	2	50
Public authority (n.e.i.) and defence services ..	28	84	9	93	18	2	20	102	11	113
Community and business services (including professional)(a) ..	32	104	37	141	33	19	52	137	56	193
Amusement, hotels and other accommodation, cafés, personal service, etc... ..	1	4	13	17	11	1	12	15	14	29
Other industries and industry inadequately described or not stated ..	1	20	..	20	2	..	2	22	..	22
<i>Total in Work Force</i>	<i>1,121</i>	<i>488</i>	<i>61</i>	<i>549</i>	<i>1,578</i>	<i>37</i>	<i>1,615</i>	<i>2,066</i>	<i>98</i>	<i>2,164</i>
Persons not in work force	524	763	1,093	1,856	190	403	593	953	1 496	2,449
Grand Total ..	1,645	1,251	1,154	2,405	1,768	440	2,208	3,019	1,594	4,613

(a) Includes police, fire brigades, hospitals, medical and dental services, education, and business services.

**§ 4. Cocos (Keeling) Islands**

**TERRITORY OF COCOS (KEELING) ISLANDS: AGE DISTRIBUTION OF THE  
POPULATION, CENSUS, 30th JUNE, 1961**

Age last birthday (years)							Males	Females	Persons
0- 4 .. ..	..	..	..	..	..	..	53	48	101
5- 9 .. ..	..	..	..	..	..	..	35	44	79
10-14 .. ..	..	..	..	..	..	..	39	42	81
15-19 .. ..	..	..	..	..	..	..	21	22	43
20-24 .. ..	..	..	..	..	..	..	36	20	56
25-29 .. ..	..	..	..	..	..	..	31	23	54
30-34 .. ..	..	..	..	..	..	..	24	19	43
35-39 .. ..	..	..	..	..	..	..	29	8	37
40-44 .. ..	..	..	..	..	..	..	20	18	38
45-49 .. ..	..	..	..	..	..	..	18	11	29
50-54 .. ..	..	..	..	..	..	..	10	6	16
55-59 .. ..	..	..	..	..	..	..	8	..	8
60-64 .. ..	..	..	..	..	..	..	4	5	9
65-69 .. ..	..	..	..	..	..	..	3	3	6
70-74 .. ..	..	..	..	..	..	..	1	2	3
75-79 .. ..	..	..	..	..	..	..	1	2	3
<b>Total .. ..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>333</b>	<b>273</b>	<b>606</b>
Under 21 .. ..	..	..	..	..	..	..	155	161	316
21-64 .. ..	..	..	..	..	..	..	173	105	278
65 and over .. ..	..	..	..	..	..	..	5	7	12
<b>Total .. ..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>333</b>	<b>273</b>	<b>606</b>



**TERRITORY OF COCOS (KEELING) ISLANDS: CONJUGAL CONDITION OF  
THE POPULATION, CENSUS, 30th JUNE, 1961**

Conjugal condition							Males	Females	Persons
Never married—									
Under 15 years of age	..	..	..	..	..	..	127	134	261
15 years of age and over	..	..	..	..	..	..	76	30	106
<i>Total</i>	..	..	..	..	..	..	203	164	367
Married	..	..	..	..	..	..	113	96	209
Married but permanently separated	..	..	..	..	..	..	1	..	1
Widowed	..	..	..	..	..	..	6	11	17
Divorced	..	..	..	..	..	..	10	2	12
<b>Grand Total</b>	..	..	..	..	..	..	333	273	606

**TERRITORY OF COCOS (KEELING) ISLANDS: BIRTHPLACES OF THE  
POPULATION, CENSUS, 30th JUNE, 1961**

Birthplace							Males	Females	Persons
Australasia—									
Cocos (Keeling) Islands	..	..	..	..	..	..	207	219	426
Australia	..	..	..	..	..	..	76	40	116
Other	..	..	..	..	..	..	4	1	5
<i>Total, Australasia</i>	..	..	..	..	..	..	287	260	547
Europe—									
England	..	..	..	..	..	..	30	6	36
Wales	..	..	..	..	..	..	1	..	1
Scotland	..	..	..	..	..	..	2	1	3
Ireland	..	..	..	..	..	..	3	..	3
Other countries in Europe	..	..	..	..	..	..	6	..	6
<i>Total, Europe</i>	..	..	..	..	..	..	42	7	49
Other	..	..	..	..	..	..	4	6	10
<i>Total born outside Cocos (Keeling) Islands</i>	..	..	..	..	..	..	126	54	180
<b>Grand Total</b>	..	..	..	..	..	..	333	273	606

**TERRITORY OF COCOS (KEELING) ISLANDS: RELIGIONS OF THE  
POPULATION, CENSUS, 30th JUNE, 1961**

Religion	Males	Females	Persons
<b>Christian—</b>			
Catholic, Roman(a) .. .. .	18	4	22
Catholic(a) .. .. .	6	5	11
Church of England .. .. .	54	23	77
Methodist .. .. .	8	8	16
Presbyterian .. .. .	6	2	8
Other (including Christian undefined) .. .. .	9	6	15
<i>Total, Christian</i> .. .. .	<i>101</i>	<i>48</i>	<i>149</i>
<b>Non-Christian—</b>			
<i>Total, Non-Christian</i> .. .. .	<i>203</i>	<i>215</i>	<i>418</i>
Indefinite .. .. .	1	..	1
No Religion .. .. .	2	1	3
No Reply .. .. .	25	9	35
<b>Grand Total</b> .. .. .	<b>333</b>	<b>273</b>	<b>606</b>

(a) So described in individual Census Schedules.

**TERRITORY OF COCOS (KEELING) ISLANDS: INDUSTRY OF THE  
POPULATION, CENSUS, 30th JUNE, 1961**

Industry Group	Males	Females	Persons
Primary production .. .. .	98	69	167
Building and construction .. .. .	13	..	13
Transport and storage and communication .. .. .	77	..	77
Commerce .. .. .	6	..	6
Public authority (n.e.i.) and defence services .. .. .	7	..	7
Other .. .. .	3	9	12
<i>Total in Work Force</i> .. .. .	<i>204</i>	<i>78</i>	<i>282</i>
Persons not in work force .. .. .	129	195	324
<b>Grand Total</b> .. .. .	<b>333</b>	<b>273</b>	<b>606</b>

## § 5. Christmas Island

TERRITORY OF CHRISTMAS ISLAND: AGE DISTRIBUTION OF THE  
POPULATION, CENSUS, 30th JUNE, 1961

Age last birthday (years)							Males	Females	Persons
0-4	..	..	..	..	..	..	255	223	478
5-9	..	..	..	..	..	..	232	223	455
10-14	..	..	..	..	..	..	155	156	311
15-19	..	..	..	..	..	..	91	64	155
20-24	..	..	..	..	..	..	261	82	343
25-29	..	..	..	..	..	..	208	81	289
30-34	..	..	..	..	..	..	166	82	248
35-39	..	..	..	..	..	..	119	56	175
40-44	..	..	..	..	..	..	111	54	165
45-49	..	..	..	..	..	..	125	33	158
50-54	..	..	..	..	..	..	105	32	137
55-59	..	..	..	..	..	..	72	26	98
60-64	..	..	..	..	..	..	40	9	49
65-69	..	..	..	..	..	..	13	9	22
70-74	..	..	..	..	..	..	8	4	12
75-79	..	..	..	..	..	..	1	..	1
80-84	..	..	..	..	..	..	1	..	1
85-89	..	..	..	..	..	..	..	1	1
90-94	..	..	..	..	..	..	..	1	1
Total .. .. .							1,963	1,136	3,099
Under 21 .. .. .							783	683	1,466
21-64 .. .. .							1,157	438	1,595
65 and over .. .. .							23	15	38
Total .. .. .							1,963	1,136	3,099

TERRITORY OF CHRISTMAS ISLAND: CONJUGAL CONDITION OF THE  
POPULATION, CENSUS, 30th JUNE, 1961

Conjugal condition							Males	Females	Persons
Never married—									
Under 15 years of age	..	..	..	..	..	..	642	602	1,244
15 years of age and over	..	..	..	..	..	..	690	78	768
Total .. .. .							1,332	680	2,012
Married .. .. .							604	419	1,023
Married but permanently separated .. .. .							3	1	4
Widowed .. .. .							21	34	55
Divorced .. .. .							3	2	5
Grand Total .. .. .							1,963	1,136	3,099

**TERRITORY OF CHRISTMAS ISLAND: BIRTHPLACES OF THE  
POPULATION, CENSUS, 30th JUNE, 1961**

Birthplace	Males	Females	Persons
<b>Australasia—</b>			
Christmas Island .. .. .	475	424	899
Australia .. .. .	50	58	108
Cocos (Keeling) Islands .. .. .	130	101	231
Other .. .. .	3	2	5
<i>Total, Australasia</i> .. .. .	<i>658</i>	<i>585</i>	<i>1,243</i>
<b>Europe—</b>			
England .. .. .	18	10	28
Wales .. .. .	1	..	1
Scotland .. .. .	4	4	8
Ireland .. .. .	3	..	3
Other countries in Europe .. .. .	7	2	9
<i>Total, Europe</i> .. .. .	<i>33</i>	<i>16</i>	<i>49</i>
<b>Asia—</b>			
China .. .. .	508	155	663
Hong Kong .. .. .	6	6	12
India .. .. .	13	4	17
Indonesia .. .. .	34	32	66
Malaya .. .. .	219	98	317
Singapore .. .. .	485	233	718
Other countries in Asia .. .. .	5	6	11
<i>Total, Asia</i> .. .. .	<i>1,270</i>	<i>534</i>	<i>1,804</i>
<b>Other</b> .. .. .	2	1	3
<i>Total born outside Christmas Island</i> .. .. .	<i>1,488</i>	<i>712</i>	<i>2,200</i>
<b>Grand Total</b> .. .. .	<b>1,963</b>	<b>1,136</b>	<b>3,099</b>

**TERRITORY OF CHRISTMAS ISLAND: RELIGIONS OF THE  
POPULATION, CENSUS, 30th JUNE, 1961**

Religion	Males	Females	Persons
<b>Christian—</b>			
Catholic, Roman(a) .. .. .	46	17	63
Catholic(a) .. .. .	28	13	41
Churches of Christ .. .. .	2	3	5
Church of England .. .. .	41	43	84
Greek Orthodox .. .. .	3	4	7
Lutheran .. .. .	3	..	3
Methodist .. .. .	6	7	13
Presbyterian .. .. .	13	10	23
Protestant (undefined) .. .. .	11	5	16
Other (including Christian undefined) .. .. .	7	2	9
<i>Total, Christian</i> .. .. .	<i>160</i>	<i>104</i>	<i>264</i>
<b>Non-Christian—</b>			
<i>Total, Non-Christian</i> .. .. .	<i>948</i>	<i>542</i>	<i>1,490</i>
Indefinite .. .. .	4	3	7
No Religion .. .. .	1	..	1
No Reply .. .. .	850	487	1,337
<b>Grand Total</b> .. .. .	<b>1,963</b>	<b>1,136</b>	<b>3,099</b>

(a) So described in individual Census Schedules.

**TERRITORY OF CHRISTMAS ISLAND: INDUSTRY OF THE  
POPULATION, CENSUS, 30th JUNE, 1961**

Industry group	Males	Females	Persons
Mining and quarrying .. .. .	1,094	19	1,113
Electricity, gas, water and sanitary services (production, supply and maintenance) .. .. .	21	..	21
Building and construction .. .. .	93	..	93
Transport and storage and communication .. .. .	16	..	16
Commerce .. .. .	9	1	10
Community and business services (including professional)(a)	39	27	66
Amusement, hotels and other accommodation, cafés, personal service, etc... .. .	15	34	49
Other industries and industry inadequately described or not stated .. .. .	8	2	10
<i>Total in Work Force</i> .. .. .	<i>1,295</i>	<i>83</i>	<i>1,378</i>
Persons not in work force .. .. .	668	1,053	1,721
<b>Grand Total</b> .. .. .	<b>1,963</b>	<b>1,136</b>	<b>3,099</b>

(a) Includes police, fire brigades, hospitals, medical and dental services, education, and business services.

## CHAPTER VI

### MANUFACTURING INDUSTRY

**NOTE.**—Further detail on the subjects dealt with in this chapter is contained in the annual printed bulletin *Secondary Industries*. Information is also published, as soon as the data can be prepared, in a series of 34 annual mimeographed bulletins, *Manufacturing Industries*, each relating to a particular industry or group of industries. Details of the industries covered are contained in § 2. Statistical Publications of Australia, of the chapter Statistical Organization and Sources of Information. Advance annual information is published in mimeographed form in *A Summary of Principal Statistics of Factories* and in *Principal Factory Products*. Current information on factory products is available in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the *Monthly Bulletin of Production Statistics*. A preliminary annual statement (*Factory Statistics*) and monthly statement (*Production Statistics*) are also issued.

In addition to the above-mentioned publications, there is also a series of 45 monthly *Production Summaries*, each relating to the production of a particular commodity or group of commodities (see reference above to Statistical Publications).

#### § 1. General

1. **Introduction.**—A complete statistical account of the growth of the manufacturing industry in Australia cannot be given, as the necessary statistics were not collected by the several States on a definite and uniform basis prior to 1906. A standard classification of manufacturing industries was formulated at a conference of Australian statisticians in 1902 and adopted by all States in 1906, and figures on this basis were prepared for 1907 and subsequent years.

Prior to the federation of the Australian States in 1901, the manufacturing industry in Australia was engaged primarily in the production of goods for local use, mainly food commodities, furniture, bricks, clothing made from imported materials, printing, the repair rather than the manufacture of machinery, and the preliminary treatment of primary products, such as wool-scouring and sawmilling.

After federation, steady expansion of the manufacturing industry resulted from the removal of interstate trade barriers and the operation of a uniform protective tariff. This expansion was quickened as a result of the demands created by the 1914–18 War, the curtailment of imports, and the rapid growth of spending power within the community. New and more advanced development took place, iron and steel works and many related and subsidiary industries were established, extensive manufacture of machinery was begun, and a wide range of high-grade products—textiles, metal manufactures, electrical goods, etc.—was added to the list of commodities made in Australia. A factor in the post-war growth of manufacturing industry in Australia was the creation in 1921 of the Tariff Board (see Chapter XIII. Oversea Trade). As well as encouraging primary industries, the Board by means of protective tariffs assisted new manufacturing industries until they were soundly established, and local manufacturers who had been adversely affected by overseas competition.

This expansion was checked by the world-wide economic depression of 1929–33, but in 1933, returning general prosperity and the opportunities opened to local manufacturers by import restrictions, together with depreciation of Australian currency, gave renewed stimulus to manufacturing enterprise. As economic conditions improved, the tariff, revenue duties and primage were reduced, but without materially prejudicing the progress of local manufactures.

When war broke out in September, 1939, Australia became a major source of supply for British countries east of Suez, and in meeting their demands, as well as those arising locally because of interruption of overseas imports, existing manufacturing industries expanded, and new enterprises were developed rapidly for the production of all classes of munitions, aircraft, ships, many new kinds of machinery and metal manufactures, scientific equipment, textiles, chemicals, etc. The outbreak of war with Japan, the basing of Allied armed forces in Australia, and Australian responsibility for supplies in the South-west Pacific Area, gave added impetus to these developments, and manufacturing in Australia outstripped all previous levels.

The cessation of war production and the transition of industry to a peace-time basis temporarily retarded progress, but from 1945–46 onward there has been renewed expansion of the manufacturing industries to which an inflow of capital from overseas contributed.

**2. Decentralization of Manufacturing Industries.**—Following upon a report by the Secondary Industries Commission, the Commonwealth Government called a conference of Commonwealth and State Ministers in August, 1945, to formulate a national policy for the decentralization of secondary industries. It was agreed that the State Governments should seek to promote decentralization along the lines appropriate to each, providing necessary services, assistance and concessions to the full extent of State resources. The Commonwealth undertook to collaborate in all matters of Commonwealth industrial policy affecting the development and location of industry, to investigate, in association with the States, the prospects of developing secondary industries in selected areas, to advise the States of developments desirable for defence purposes, and to provide financial assistance for projects of national importance where the cost would be great relative to the State's resources.

The Commonwealth assisted decentralization by allocating to private industry munitions and other defence buildings in decentralized areas and accommodating migrants in provincial centres with prospects of development. Oversea firms contemplating establishment in Australia are encouraged to select locations in rural areas or the less industrialized States.

**3. Customs and Excise Tariffs and Bounties on Manufactures.**—Particulars of Australian customs and excise tariffs, and the constitution and functions of the Australian Tariff Board in relation to matters affecting the industrial development of Australia, are given in Chapter XIII. Oversea Trade.

Bounties are paid by the Commonwealth Government to encourage local manufacture of certain products. The statutory provisions usually fix a term of operation of the bounty, provide for payment at a rate varying according to changes in the corresponding customs duty, specify the annual maximum amount of bounty payable and require the bounty to be withheld or reduced if a manufacturer's net profit in production of the commodity exceeds a certain rate, or if rates of wages and conditions of employment in production of the commodity do not conform to prescribed standards.

**4. Scientific Research and Standardization.**—(i) *The Commonwealth Scientific and Industrial Research Organization.* The function of this Organization is to initiate and conduct research in connexion with industries in Australia, to train research workers, to establish industrial research studentships and fellowships, to make grants in aid of pure scientific research, to establish industrial research associations in various industries, to provide for testing and standardization of scientific equipment, to conduct an information service relating to scientific and industrial matters, and to act for Australia in liaison with other countries in matters of scientific research. For further information concerning the work of the Organization, see Chapter XVIII. Education, Cultural Activities, and Research, of this Year Book.

(ii) *The Standards Association of Australia.* The Standards Association of Australia is the national standardizing organization of Australia, and issues Australian standard specifications for materials and codes of practice.

The Association was established in July, 1929, by the amalgamation of the Australian Commonwealth Engineering Standards Association and the Australian Commonwealth Association of Simplified Practice. It is an independent body in close touch with modern industrial requirements and has the full recognition and support of the Commonwealth and State governments and industry. It was incorporated by Royal Charter in 1950.

The sole executive authority of the Association is vested in the Council, on which industry is fully represented, together with official representatives of the Commonwealth and State governments and their technical departments, and of scientific, professional and commercial organizations. Voluntary assistance is rendered in the drafting of specifications and codes by several thousand individuals who are experts in their particular fields, and are organized into some hundreds of committees. These committees are grouped under broad industry headings including civil engineering and building construction, mechanical engineering, electrical engineering, chemicals, timber, transportation, aircraft materials, ferrous and non-ferrous metallurgy, plastics, textiles, mining, ceramics, medical and dental materials, domestic economy, agriculture and dairying, safety, packaging, and water supply and sewerage.

These committees are composed of nominated representatives of manufacturing, distributing and purchasing organizations, and of scientific and other expert authorities in the particular field of the project being dealt with. The operations of these committees are co-ordinated and supervised by committees broadly representative of the whole industry within which the respective projects are included.

The specifications of the Association provide a suitable standard of performance, quality, and dimension, and an equitable basis for tendering. They help to eliminate redundant qualities and sizes. They enable purchasers to obtain their requirements with greater assurance of satisfaction, with more rapid delivery and without the necessity of drafting individual specifications.

The underlying principles covering the preparation of the specifications and codes are that they shall be in accordance with the needs of industry; that the common interests of producer and consumer be maintained; that periodical revision should keep the work abreast with progress; and that standardization be arrived at by general consent without coercion.

Organizations, companies, firms and individuals interested in the work of the Association are eligible for subscription membership. Members are entitled to free copies of the publications of the Association and to the use of the library and its Special Information Service. Bibliographical research is undertaken for committees, members of the Association, and industry in general. Many hundreds of inquiries are answered each year.

The Association has international affiliations, and the standards of all British and foreign countries are filed in the library and are accessible to members. It is a member, representing Australia, of the International Organization for Standardization (ISO). The Association also administers the Australian National Committee of the International Electrotechnical Commission.

The Association is also the Australian agent of the British Standards Institution, and all British standards may be purchased from headquarters and branch offices in the various States.

The head-quarters of the Association are at Science House, Gloucester Street, Sydney, and branches of the Association are situated at Temple Court, 422 Collins Street, Melbourne; School of Arts Building, 166 Ann Street, Brisbane; 11 Bagot Street, North Adelaide; 10 Hooper Street, West Perth; c/o Engineering School, University of Tasmania, Sandy Bay; and Howard Smith Chambers, Watt Street, Newcastle.\*

(iii) *The National Association of Testing Authorities.* The National Association of Testing Authorities organizes testing facilities throughout Australia to serve private and governmental needs. Laboratories may register voluntarily in respect of tests within their competence, and the Association ensures the maintenance of their standards of testing. Certificates of tests issued in the name of the Association by the registered laboratories are generally accepted by governmental, industrial and commercial interests.\*

(iv) *Industrial Design Council of Australia.* The Industrial Design Council of Australia was established in June, 1958, for the purpose of encouraging better design in Australian-made goods and fostering an appreciation of good design throughout the community. The decision to set up the Council arose from a realization on the part of representatives of industry and government, designers and educationists, that there was a pressing need in Australia for an independent and authoritative body to promote better design in the interests of trade development.

The Council has a membership fully representative of industry, commerce and government, together with designers and educationists. It is financed by donations from industry and by Commonwealth grants. In 1962, the Commonwealth Government announced a grant to the Council of up to £20,000 per year for the next three years. State Committees for Industrial Design are being set up in order to extend the Council's activities throughout Australia and to co-ordinate efforts for the promotion of better design.

As part of its programme of assisting industry, the Council conducts lecture series dealing with various aspects of product design. Design counselling is available to manufacturing companies on request, and manufacturers seeking the services of designers are put in touch with qualified people.

Other projects include the setting-up of a Design Index, providing a photographic catalogue of well designed Australian goods, for reference by manufacturers, retailers, architects, designers and the public; a Register of Designers, providing a comprehensive reference to Australian designers to assist those seeking their services; displays and exhibitions of well designed goods, both local and overseas; design training—the council is aware of the urgent need to raise the standard of training in industrial design and is co-operating with education authorities to this end; information services—it is intended to establish information offices in all capital cities, to provide information on all matters concerned with design.

The offices of the Council are in ICI House, 1 Nicholson Street, Melbourne, C.2.

5. *Definitions in Factory Statistics.*—The statistics relating to factories have been compiled from tabulations made by the Deputy Commonwealth Statisticians in the several States, from returns supplied to them annually by manufacturers in accordance with the statistical acts of the States and the Commonwealth. A return must be supplied in respect of every *factory*, which is defined for this purpose as an establishment where four or more persons are employed or where power (other than manual) is used in any manufacturing process. This definition includes factories in educational and charitable institutions,

\* For further information see also Chapter XVIII, Education, Cultural Activities, and Research.



reformatories, and other public institutions (except penitentiaries), but does not cover small-goods makers, laundries, photography studios, florists and seedsmen, or most abattoirs. It should be noted that details relating to small establishments not classified for statistical purposes as factories are not included in the figures contained in this chapter.

If a manufacturing business is conducted in conjunction with any other activity, particulars relating to the manufacturing section only are included in the statistics. Where two or more industries are conducted in the same establishment, a separate return is obtained for each industry if practicable.

Manufacturers are requested to state in their returns particulars as to the number, age, wages, etc., of their employees, the value of premises and equipment, the horse-power of machinery, the value, and in most cases the quantities, of raw materials (including containers, tools replaced, etc.) and fuel used, and quantities and values of principal materials and articles produced. The returns obtained from manufacturers are not intended to show a complete record of the income and expenditure of factories nor to show the profits or losses of factories collectively or individually.

All *persons employed* in the manufacturing activities of a factory are counted as factory employees including working proprietors and "out-workers".

The *average number of persons employed* is quoted on two different bases, the average during the period of operation and the average over the whole year. Of these, the former is simply the aggregate of the average number of persons employed in each factory during its period of operation (whether the whole or only part of the year). This average is used only in respect of details relating to classification according to the number of persons employed. The latter, which is used in all other instances, is calculated by reducing the average number working in the factories (irrespective of period of operation) to the equivalent number working for a full year.

*Working proprietors* are included in all employment figures other than those relating to monthly employment and age dissections, but salaries and wages paid in all cases exclude drawings by working proprietors.

*Value of material used* includes the value, in the usual sense, of the material used, stores used, containers, tools replaced and materials used in repairs to plant.

*Value of fuel, etc., used* includes also the cost of power and light used, of lubricants and of water.

The *value of factory output* is the value of the goods manufactured or their value after passing through the particular process of manufacture concerned, and includes the amount received for repair work, work done on commission and receipts for other factory work. The basis of valuation of the output is the selling value of the goods at the factory, exclusive of all delivery costs and charges and excise duties, but inclusive of bounty and subsidy payments to the manufacturer of the finished article.

The *value of production* is the value added to raw materials by the process of manufacture. It is calculated by deducting from the value of factory output the value (at the factory) of the materials used, containers and packing, power, fuel and light used, tools replaced, and materials used in repairs to plant (but not depreciation charges).

In the process of manufacture, many goods are treated in several industries, the output of one becoming the raw material of another, so that such commodities are counted more than once in the aggregate value of output and of raw materials. Examples are raw sugar passing from the mills to the refinery, metals from the smelters which become raw materials in establishments concerned in the production of metal goods, and timber from the sawmills used in furniture factories and in joinery. On the other hand, the aggregate value of production is assessed without duplication, the value added by each industry being taken into account once only. For this reason, the value of production, and not the value of the output, is used as a measure of activity in the manufacturing industries as a whole.

In the special case of government factories and workshops, the value of output is, in most cases, estimated by adding 10 per cent. to the value of materials and fuel used and other factory costs, including salaries and wages paid.

The *rated horse-power of engines used* for factories other than central electric stations relates to the rated horse-power of engines ordinarily in use.

Statistics relating to factory activity in the Australian Capital Territory and Northern Territory are not included in the figures contained in this chapter.

**6. Classification of Factories.**—In the compilation of statistical data relating to factories in Australia, a standard classification of manufacturing industries, formulated at a conference of Australian statisticians in 1902 and revised from time to time, was used until the year

1929-30. A new classification was introduced in 1930-31, and this in turn was revised and extended (principally in respect of the placement and composition of sub-classes) in accordance with decisions of the 1945 Conference of Statisticians.

Owing to limitations of space, details published in general tables in this chapter are confined either to the sixteen classes of industry or to total factory activity. Some particulars of certain of the sub-classes shown below are published in the latter portion of this chapter, and full details for all sub-classes may be found in the bulletin *Secondary Industries*, published annually.

The classes and sub-classes in the current classification of factories are as follows.

### CLASSIFICATION OF FACTORIES

#### CLASS I.—TREATMENT OF NON-METALLIFEROUS MINE AND QUARRY PRODUCTS

Coke works.  
Briquetting and pulverized coal.  
Carbide.  
Lime, plaster of paris, asphalt.  
Fibrous plaster and products.  
Marble, slate, etc.  
Cement, portland.  
Asbestos cement sheets and mouldings.  
Other cement goods.  
Other.

#### CLASS II.—BRICKS, POTTERY, GLASS, ETC.

Bricks and tiles.  
Earthenware, china, porcelain and terracotta.  
Glass (other than bottles).  
Glass bottles.  
Other.

#### CLASS III.—CHEMICALS, DYES, EXPLOSIVES PAINTS, OILS, GREASE

Industrial and heavy chemicals and acids.  
Pharmaceutical and toilet preparations.  
Explosives (including fireworks).  
White lead, paints and varnish.  
Oils, vegetable.  
Oils, mineral.  
Oils, animal.  
Boiling-down, tallow-refining.  
Soap and candles.  
Chemical fertilizers.  
Inks, polishes, etc.  
Matches.  
Other.

#### CLASS IV.—INDUSTRIAL METALS, MACHINES, CONVEYANCES

Smelting, converting, refining, rolling of iron and steel.  
Foundries (ferrous).  
Plant, equipment and machinery, etc.  
Other engineering.  
Extracting and refining of other metals; alloys.  
Electrical machinery, cables and apparatus.  
Construction and repair of vehicles (10 groups).  
Ship and boat building and repairing, marine engineering (government and other).  
Cutlery and small hand tools.  
Agricultural machines and implements.  
Non-ferrous metals—  
Rolling and extrusion.  
Founding, casting, etc.  
Iron and steel sheets.  
Sheet metal working, pressing, and stamping.  
Pipes, tubes and fittings—ferrous.  
Wire and wire working (including nails).  
Stoves, ovens and ranges.  
Gas fittings and meters.  
Lead mills.  
Sewing machines.

#### CLASS IV.—INDUSTRIAL METALS, MACHINES, CONVEYANCES—continued

Arms, ammunition (excluding explosives).  
Wireless and amplifying apparatus.  
Other metal works.

#### CLASS V.—PRECIOUS METALS, JEWELLERY, PLATE

Jewellery.  
Watches and clocks (including repairs).  
Electroplating (gold, silver, chromium, etc.).

#### CLASS VI.—TEXTILES AND TEXTILE GOODS (NOT DRESS)

Cotton ginning.  
Cotton spinning and weaving.  
Wool—carding, spinning, weaving.  
Hosiery and other knitted goods.  
Silk, natural.  
Rayon, nylon and other synthetic fibres.  
Flax mills.  
Rope and cordage.  
Canvas goods, tents, tarpaulins, etc.  
Bags and sacks.  
Textile dyeing, printing and finishing.  
Other.

#### CLASS VII.—SKINS AND LEATHER (NOT CLOTHING OR FOOTWEAR)

Furriers and fur-dressing.  
Woolscouring and fellmongery.  
Tanning, currying and leather-dressing.  
Saddlery, harness and whips.  
Machine belting (leather or other).  
Bags, trunks, etc.

#### CLASS VIII.—CLOTHING (EXCEPT KNITTED)

Tailoring and ready-made clothing.  
Waterproof and oilskin clothing.  
Dressmaking, hemstitching.  
Millinery.  
Shirts, collars, underclothing.  
Foundation garments.  
Handkerchiefs, ties and scarves.  
Hats and caps.  
Gloves.  
Boots and shoes (not rubber).  
Boot and shoe repairing.  
Boot and shoe accessories.  
Umbrellas and walking sticks.  
Dyeworks and cleaning, etc.  
Other.

#### CLASS IX.—FOOD, DRINK AND TOBACCO

Flour-milling.  
Cereal foods and starch.  
Animal and bird foods.  
Chaffcutting and corncrushing.  
Bakeries (including cakes and pastry).  
Biscuits.  
Sugar-mills.  
Sugar-refining.

CLASS IX.—FOOD, DRINK AND TOBACCO—  
*continued*

Confectionery (including chocolate and icing sugar).  
Jam, fruit and vegetable canning.  
Pickles, sauces, vinegar.  
Bacon curing.  
Butter factories.  
Cheese factories.  
Condensed and processed milk factories.  
Margarine.  
Meat and fish preserving.  
Condiments, coffee, spices.  
Ice and refrigerating.  
Salt.  
Aerated waters, cordials, etc.  
Breweries.  
Distilleries.  
Wine-making.  
Cider and perry.  
Malting.  
Bottling.  
Tobacco, cigars, cigarettes, snuff.  
Dehydrated fruit and vegetables.  
Ice cream.  
Sausage casings.  
Arrowroot.  
Other.

CLASS X.—SAWMILLS, JOINERY, BOXES, ETC.,  
WOOD TURNING AND CARVING

Sawmills.  
Plywood mills (including veneers).  
Bark mills.  
Joinery.  
Cooperage.  
Boxes and cases.  
Woodturning, woodcarving, etc.  
Basketware and wickerware (including sea-grass and bamboo furniture).  
Perambulators (including pushers and strollers).  
Wall and ceiling boards (not plaster or cement).  
Other.

CLASS XI.—FURNITURE OF WOOD, BEDDING, ETC.  
Cabinet and furniture making (including billiard tables and upholstery).  
Bedding and mattresses (not wire).  
Furnishing drapery.

CLASS XI.—FURNITURE OF WOOD, BEDDING, ETC.—  
*continued*

Picture frames.  
Blinds.

CLASS XII.—PAPER, STATIONERY, PRINTING,  
BOOKBINDING, ETC.

Newspapers and periodicals.  
Printing—  
Government.  
General, including bookbinding.  
Manufactured stationery.  
Stereotyping, electrotyping.  
Process and photo engraving.  
Cardboard boxes, cartons and containers.  
Paper bags.  
Paper-making.  
Pencils, penholders, chalks, crayons.  
Other.

## CLASS XIII.—RUBBER

Rubber goods (including tyres made).  
Tyre retreading and repairing.

## CLASS XIV.—MUSICAL INSTRUMENTS.

Gramophones and gramophone records.  
Pianos, piano-players, organs.  
Other.

## CLASS XV.—MISCELLANEOUS PRODUCTS

Linoleum, leather-cloth, oil-cloth, etc.  
Bone, horn, ivory and shell.  
Plastic moulding and products.  
Brooms and brushes.  
Optical instruments and appliances.  
Surgical and other scientific instruments and appliances.  
Photographic material (including developing and printing).  
Toys, games and sports requisites.  
Artificial flowers.  
Other.

## CLASS XVI.—HEAT, LIGHT, AND POWER

Electric light and power.  
Gas works.

7. Factory Development since 1901, Australia.—The development of the manufacturing industries in Australia at intervals since 1901 is summarized in the following table.

FACTORIES: AUSTRALIA

Year	Factories	Employment(a)	Salaries and wages paid(b)	Value of—				
				Materials and fuel used	Output	Production (c)	Land and buildings	Plant and machinery
	No.	'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)
1901 ..	11,143	198	27,528	81,763	133,022	51,259	32,701	31,516
1911 ..	14,455	312	62,932	213,559	323,993	110,434	60,831	68,655
1920-21 ..	17,113	367	62,455	172,489	290,799	118,310	112,211	124,498
1930-31 ..	21,751	339	137,919	386,881	644,795	257,914	144,094	161,356
1940-41 ..	27,300	650	491,718	1,306,963	2,150,835	843,872	302,785	336,615
1950-51 ..	43,147	969						
1956-57 ..	53,200	1,063	891,090	2,400,293	4,022,413	1,622,120	759,687	917,037
1957-58 ..	53,988	1,074	929,290	2,545,159	4,273,882	1,728,723	849,036	1,012,735
1958-59 ..	54,888	1,088	970,553	2,649,331	4,491,932	1,842,601	947,899	1,108,385
1959-60 ..	56,657	1,132	1,086,359	2,948,813	5,023,696	2,074,883	1,063,852	1,220,064
1960-61 ..	57,782	1,145	1,143,836	3,047,344	5,217,148	2,169,804	1,193,590	1,391,490

(a) 1901 and 1911—average employment during period of operation. Later years relate to average employment over whole year. Working proprietors are included in all years. (b) Excludes drawings by working proprietors. (c) Value added in process of manufacture (i.e., value of output less value of materials and fuel, etc., used). (d) Not available.

## § 2. Number of Factories

1. Number of Factories in each State.—The following table shows the number of factories operating in each State in the years 1956–57 to 1960–61.

## FACTORIES: NUMBER

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
1956–57 .. ..	21,838	16,232	5,537	4,063	3,935	1,595	53,200
1957–58 .. ..	22,270	16,426	5,528	4,168	3,941	1,655	53,988
1958–59 .. ..	22,684	16,527	5,651	4,235	4,125	1,666	54,888
1959–60 .. ..	23,274	16,979	5,758	4,684	4,279	1,683	56,657
1960–61 .. ..	23,585	17,173	5,882	5,042	4,334	1,766	57,782

2. Number of Factories in Industrial Classes.—(i) *Australia*. The next table shows the number of factories in Australia during 1956–57 to 1960–61 classified to the industrial classes agreed upon by the Conference of Statisticians in 1930. Details of some of the principal industries included in the table will be found in § 11.

## FACTORIES: NUMBER IN INDUSTRIAL CLASSES, AUSTRALIA

Class of industry	1956–57	1957–58	1958–59	1959–60	1960–61
I. Treatment of non-metalliferous mine and quarry products .. ..	1,331	1,328	1,344	1,374	1,434
II. Bricks, pottery, glass, etc. .. ..	672	660	663	682	694
III. Chemicals, dyes, explosives, paints, oils, grease ..	1,162	1,184	1,218	1,248	1,258
IV. Industrial metals, machines, conveyances ..	19,766	20,518	21,254	22,622	23,532
V. Precious metals, jewellery, plate .. ..	824	808	818	823	859
VI. Textiles and textile goods (not dress) .. ..	1,364	1,364	1,373	1,435	1,421
VII. Skins and leather (not clothing or footwear) ..	785	761	729	727	703
VIII. Clothing (except knitted) .. ..	7,312	7,266	7,195	7,267	7,493
IX. Food, drink and tobacco .. ..	7,315	7,455	7,580	7,449	7,331
X. Sawmills, joinery, boxes, etc., wood turning and carving .. ..	5,872	5,764	5,676	5,771	5,732
XI. Furniture of wood, bedding, etc. .. ..	2,199	2,200	2,184	2,211	2,176
XII. Paper, stationery, printing, bookbinding, etc. ..	2,367	2,413	2,518	2,619	2,688
XIII. Rubber .. ..	536	565	606	620	629
XIV. Musical instruments .. ..	88	88	86	87	88
XV. Miscellaneous products .. ..	1,185	1,207	1,251	1,330	1,370
<i>Total, Classes I. to XV.</i> .. ..	<i>52,778</i>	<i>53,581</i>	<i>54,495</i>	<i>56,265</i>	<i>57,408</i>
XVI. Heat, light and power .. ..	422	407	393	392	374
<b>Grand Total</b> .. ..	<b>53,200</b>	<b>53,988</b>	<b>54,888</b>	<b>56,657</b>	<b>57,782</b>

(ii) *States, 1960-61.* The following table shows the number of factories in each State classified by nature of industry.

**FACTORIES: NUMBER IN INDUSTRIAL CLASSES, 1960-61**

Class of industry	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of non-metalliferous mine and quarry products ..	486	457	115	182	142	52	1,434
II. Bricks, pottery, glass, etc. ..	315	181	56	76	48	18	694
III. Chemicals, dyes, explosives, paints, oils, grease ..	628	362	83	89	69	27	1,258
IV. Industrial metals, machines conveyances ..	9,771	6,522	2,358	2,358	1,924	599	23,532
V. Precious metals, jewellery, plate ..	377	242	42	104	74	20	859
VI. Textiles and textile goods (not dress) ..	469	806	32	56	39	19	1,421
VII. Skins and leather (not clothing or footwear) ..	319	260	50	39	27	8	703
VIII. Clothing (except knitted) ..	3,389	2,580	550	491	389	94	7,493
IX. Food, drink and tobacco ..	2,606	2,052	1,020	723	635	295	7,331
X. Sawmills, joinery, boxes, etc., wood turning and carving ..	2,203	1,396	837	361	462	473	5,732
XI. Furniture of wood, bedding, etc. ..	826	630	268	208	175	69	2,176
XII. Paper, stationery, printing, bookbinding, etc. ..	1,159	967	213	175	132	42	2,688
XIII. Rubber ..	228	163	108	65	43	22	629
XIV. Musical instruments ..	37	26	7	10	8	..	88
XV. Miscellaneous products ..	679	463	70	69	75	14	1,370
<i>Total Classes I. to XV. ..</i>	<i>23,492</i>	<i>17,107</i>	<i>5,809</i>	<i>5,006</i>	<i>4,242</i>	<i>1,752</i>	<i>57,408</i>
XVI. Heat, light and power ..	93	66	73	36	92	14	374
<b>Grand Total ..</b>	<b>23,585</b>	<b>17,173</b>	<b>5,882</b>	<b>5,042</b>	<b>4,334</b>	<b>1,766</b>	<b>57,782</b>

**§ 3. Classification of Factories by Number of Persons Employed**

NOTE.—The size classification of factories is based on the average weekly number of persons employed during the period of operation (including working proprietors).

1. *States, 1960-61.*—The following table shows, for each State, the number of factories classified by the average number of persons employed.

**FACTORIES: CLASSIFICATION BY SIZE OF FACTORY, 1960-61**

Size of factory (Persons employed)	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
<b>NUMBER OF FACTORIES</b>							
Under 4 ..	10,055	6,176	2,118	2,125	2,146	813	23,433
4 ..	1,882	1,350	593	418	388	165	4,796
5 to 10 ..	5,367	4,083	1,578	1,194	900	392	13,514
11 to 20 ..	2,735	2,365	700	587	414	184	6,985
21 to 50 ..	2,110	1,832	523	419	316	125	5,325
51 to 100 ..	745	693	177	159	96	46	1,916
101 to 200 ..	357	377	113	76	49	23	995
201 to 300 ..	126	123	40	24	15	5	333
301 to 400 ..	65	44	16	11	5	5	146
401 to 500 ..	30	33	11	7	2	..	83
501 to 750 ..	50	62	7	8	..	2	129
751 to 1,000 ..	23	16	2	4	2	2	49
Over 1,000 ..	40	19	4	10	1	4	78
<b>Total ..</b>	<b>23,585</b>	<b>17,173</b>	<b>5,882</b>	<b>5,042</b>	<b>4,334</b>	<b>1,766</b>	<b>57,782</b>

The relative importance of large and small factories is illustrated by the following classification of the average number of persons employed by the size of factory in which they worked.

**FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED BY SIZE OF FACTORY, 1960-61**

Size of factory (Persons employed)	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
<b>AVERAGE NUMBER EMPLOYED DURING PERIOD WORKED</b>							
Under 4 .. ..	18,531	12,315	4,372	4,012	3,984	1,564	44,778
4 .. ..	7,528	5,400	2,372	1,672	1,552	660	19,184
5 to 10 .. ..	37,137	29,047	10,896	8,252	6,115	2,761	94,208
11 to 20 .. ..	39,799	34,962	10,105	8,654	5,945	2,641	102,106
21 to 50 .. ..	65,770	58,167	16,594	13,206	10,034	3,846	167,617
51 to 100 .. ..	52,446	48,251	12,074	11,217	6,508	3,138	133,634
101 to 200 .. ..	49,227	53,308	16,024	10,586	6,697	3,251	139,093
201 to 300 .. ..	30,279	30,051	9,571	5,756	3,677	1,210	80,544
301 to 400 .. ..	22,172	15,398	5,671	3,756	1,770	1,744	50,511
401 to 500 .. ..	13,206	14,677	4,942	2,986	908	..	36,719
501 to 750 .. ..	30,796	37,685	4,317	4,847	..	1,275	78,920
751 to 1,000 .. ..	19,772	13,821	1,770	3,443	1,632	1,538	41,976
Over 1,000 .. ..	89,651	35,939	6,707	22,175	2,739	6,834	164,045
<b>Total .. ..</b>	<b>476,314</b>	<b>389,021</b>	<b>105,415</b>	<b>100,562</b>	<b>51,561</b>	<b>30,462</b>	<b>1,153,335</b>
<b>Average per factory ..</b>	<b>20.20</b>	<b>22.65</b>	<b>17.92</b>	<b>19.94</b>	<b>11.90</b>	<b>17.25</b>	<b>19.96</b>

2. Australia, 1956-57 to 1960-61.—In the following table, factories in Australia in each year from 1956-57 to 1960-61 are classified in broad groups by the number of persons employed.

**FACTORIES: CLASSIFICATION BY NUMBER OF PERSONS EMPLOYED, AUSTRALIA**

Year	Establishments employing on the average—							
	20 and under		21 to 100		101 and upwards		Total	
	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed
1956-57—								
Number .. ..	44,790	249,069	6,730	279,974	1,680	541,872	53,200	1,070,915
Average per establish- ment .. ..	..	5.56	..	41.60	..	322.54	..	20.13
1957-58—								
Number .. ..	45,569	250,748	6,730	279,750	1,689	550,777	53,988	1,081,275
Average per establish- ment .. ..	..	5.50	..	41.57	..	326.10	..	20.03
1958-59—								
Number .. ..	46,345	253,375	6,825	282,735	1,718	560,553	54,888	1,096,663
Average per establish- ment .. ..	..	5.47	..	41.43	..	326.28	..	19.98
1959-60—								
Number .. ..	47,791	258,162	7,078	293,400	1,788	587,832	56,657	1,139,394
Average per establish- ment .. ..	..	5.40	..	41.45	..	328.77	..	20.11
1960-61—								
Number .. ..	48,728	260,276	7,241	301,251	1,813	591,808	57,782	1,153,335
Average per establish- ment .. ..	..	5.34	..	41.60	..	326.42	..	19.96

### § 4. Power Equipment in Factories

1. **General.**—Since 1936-37, statistics of power equipment in factories relate to the "rated horse-power" of engines ordinarily in use and engines in reserve or idle, omitting obsolete engines. In addition, particulars of the power equipment of central electric stations are collected in greater detail. To avoid duplication, it is essential that some distinction should be made between central electric stations and other classes of industries. In the following tables, central electric stations have been treated separately from other factories.

2. **Rated Horse-power of Engines in Factories other than Central Electric Stations.**—The following table shows the total number of factories and the total rated horse-power of engines and electric motors ordinarily in use and in reserve or idle during 1960-61.

**FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS, 1960-61**

State	Factories(a)	Rated horse-power of engines and motors	
		Ordinarily in use(b)	In reserve or idle (omitting obsolete)
New South Wales .. .. .	23,527	2,486,501	393,153
Victoria .. .. .	17,132	1,508,473	203,208
Queensland .. .. .	5,825	572,543	83,469
South Australia .. .. .	5,009	451,140	55,051
Western Australia .. .. .	4,245	268,957	41,002
Tasmania .. .. .	1,754	280,207	37,417
<b>Australia .. .. .</b>	<b>57,492</b>	<b>5,567,821</b>	<b>813,300</b>

(a) Includes gas works but excludes central electric stations, details of which are shown on p. 190.  
 (b) Excludes motors driven by electricity generated in factories not classified as central electric stations.

3. **Rated Horse-power of Engines and Electric Motors Ordinarily in Use.**—(i) *According to Type, States.* Particulars of the types and the total rated horse-power of engines, etc., ordinarily in use in each State are given below.

**FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, 1960-61**

State	Steam		Internal combustion			Water	Motors driven by electricity(b)		Total (c)
	Recipro-cating	Tur-bine	Gas	Petrol or other light oils	Heavy oils		Pur-chased	Own generation (d)	
N.S.W. ..	62,995	179,028	843	41,769	17,444	..	2,184,422	103,835	2,486,501
Victoria ..	25,307	64,332	1,758	42,053	..	890	1,374,133	56,139	1,508,473
Queensland ..	73,137	65,809	2,121	18,359	9,338	..	403,779	107,016	572,543
S. Australia ..	5,297	14,053	921	10,220	7,478	10	413,161	19,519	451,140
W. Australia ..	10,226	11,665	3,401	17,251	7,848	..	218,566	6,526	268,957
Tasmania ..	1,112	21	1	10,732	130	192	268,019	16	280,207
<b>Australia ..</b>	<b>178,074</b>	<b>334,908</b>	<b>9,045</b>	<b>140,384</b>	<b>42,238</b>	<b>1,092</b>	<b>4,862,080</b>	<b>293,051</b>	<b>5,567,821</b>

(a) Includes gas works but excludes central electric stations, details of which are shown on p. 190.  
 (b) Excludes motors driven by electricity generated in factories not classified as central electric stations.  
 (c) Excludes particulars in column (d).

(ii) *According to Type, Australia.* In the following table, details of the total rated horse-power of the various types of engines in use are given for Australia for the years 1956-57 to 1960-61.

**FACTORIES(a): TYPES AND TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, AUSTRALIA**

Year	Steam		Internal combustion			Water	Motors driven by electricity(b)		Total (c)
	Reciprocating	Turbine	Gas	Petrol or other light oils	Heavy oils		Purchased	Own generation (d)	
1956-57 ..	214,875	262,559	7,973	120,533	74,060	1,431	3,860,595	260,708	4,542,026
1957-58 ..	204,854	266,659	9,487	118,106	64,498	1,770	4,062,006	274,287	4,727,380
1958-59 ..	190,905	302,594	10,821	122,916	56,503	1,271	4,310,456	270,981	4,995,466
1959-60 ..	188,892	328,116	9,484	137,835	48,441	1,092	4,558,175	302,091	5,272,035
1960-61 ..	178,074	334,908	9,045	140,384	42,238	1,092	4,862,080	293,051	5,567,821

(a) Includes gas works but excludes central electric stations, details of which are shown on p. 190.

(b) Excludes motors driven by electricity generated in factories not classified as central electric stations

(c) Excludes particulars in column (d).

(iii) *In Classes of Industry, 1960-61.* The next table shows the total rated horse-power of engines and electric motors ordinarily in use in the various classes of industry in each State.

**FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE(b), 1960-61**

Class of industry	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of non-metalliferous mine and quarry products	100,504	88,804	26,347	29,673	19,318	20,435	285,081
II. Bricks, pottery, glass, etc. . .	59,465	39,066	10,448	11,419	11,292	2,553	134,243
III. Chemicals, dyes, explosives, paints, oils, grease . .	203,551	132,176	12,180	23,604	45,227	13,857	430,595
IV. Industrial metals, machines, conveyances . .	1,379,129	505,343	114,525	200,856	75,887	66,703	2,342,443
V. Precious metals, jewellery, plate	5,502	4,024	498	1,027	657	97	11,805
VI. Textiles and textile goods (not dress) . .	55,059	104,314	7,375	7,735	3,068	9,502	187,053
VII. Skins and leather (not clothing or footwear) . .	18,841	18,642	6,303	5,731	2,894	522	52,933
VIII. Clothing (except knitted) . .	25,423	27,344	4,728	4,026	2,608	893	65,022
IX. Food, drink and tobacco . .	218,652	215,584	229,362	67,647	43,527	24,987	799,759
X. Sawmills, joinery, boxes, etc., wood turning and carving	192,278	132,143	114,768	52,043	49,968	47,818	589,018
XI. Furniture of wood, bedding, etc. . .	19,754	14,214	7,527	7,062	4,340	1,527	54,424
XII. Paper, stationery, printing, bookbinding, etc. . .	96,979	110,885	23,646	23,013	6,353	90,164	351,040
XIII. Rubber . .	59,473	64,462	10,999	7,248	1,190	614	143,986
XIV. Musical instruments . .	1,246	326	48	12	12	..	1,644
XV. Miscellaneous products . .	34,168	33,290	872	2,413	1,260	409	72,412
<i>Total, Classes I. to XV. . .</i>	<i>2,470,024</i>	<i>1,490,617</i>	<i>569,626</i>	<i>443,509</i>	<i>267,601</i>	<i>280,081</i>	<i>5,521,458</i>
XVI. Gas works . .	16,477	17,856	2,917	7,631	1,356	126	46,363
<b>Grand Total . .</b>	<b>2,486,501</b>	<b>1,508,473</b>	<b>572,543</b>	<b>451,140</b>	<b>268,957</b>	<b>280,207</b>	<b>5,567,821</b>

(a) Excludes central electric stations, details of which are shown on p. 190.

(b) Excludes motors driven by electricity generated in factories not classified as central electric stations.



4. **Capacity of Engines and Generators installed in Central Electric Stations.**—(i) *According to Type, Australia.* Particulars of the type and the capacity of engines and generators installed in Central Electric Stations in Australia in 1960-61 are given in the following table.

**CENTRAL ELECTRIC STATIONS: POWER EQUIPMENT, AUSTRALIA, 1960-61**

Particulars	Capacity of engines and generators						
	Steam		Internal combustion			Water	Total
	Recipro- cating	Turbine	Gas	Petrol or other light oils	Heavy oils		
Engines installed .. Rated H.P.	2,800	6,653,074	6,718	39,148	276,479	2,094,370	9,072,589
Generators installed— Kilowatt capacity—							
Total installed .. kW.	2,084	4,919,922	4,588	26,305	189,722	1,522,310	6,664,931
Effective capacity .. "	2,024	4,672,978	2,671	23,727	172,981	1,483,901	6,358,282
Horse-power equivalent—							
Total installed .. H.P.	2,794	6,595,058	6,150	35,260	254,319	2,040,626	8,934,207
Effective capacity .. "	2,713	6,264,034	3,580	31,806	231,877	1,989,149	8,523,159

NOTE.—There were 290 establishments classified as central electric stations in 1960-61.

(ii) *States.* Details of the capacity of engines and generators installed in Central Electric Stations in each State in 1960-61 are given in the next table.

**CENTRAL ELECTRIC STATIONS: NUMBER AND POWER EQUIPMENT, 1960-61**

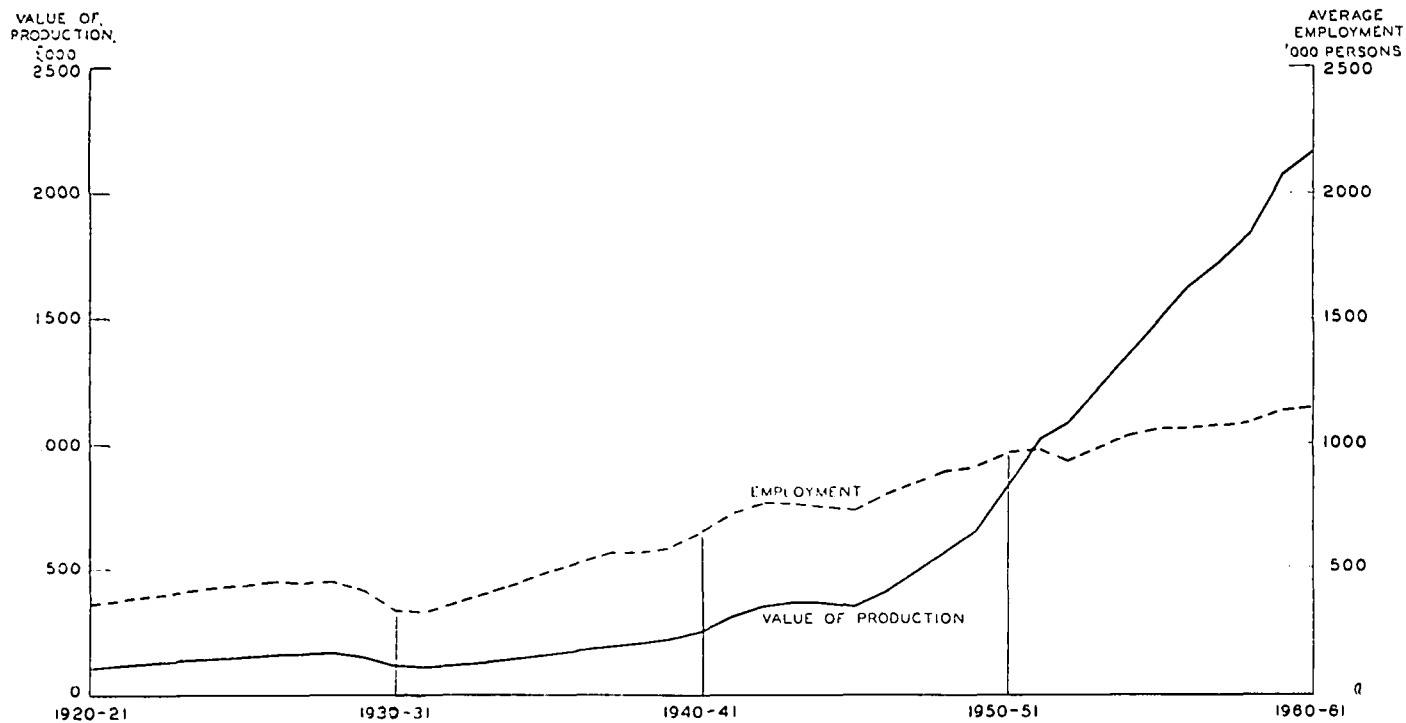
Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Central electric stations .. No.	58	41	57	33	89	12	290
Engines installed .. Rated H.P.	3,857,358	2,090,023	1,028,459	(a)	544,592	(a)	9,072,589
Generators installed— Kilowatt capacity—							
Total installed .. kW.	2,853,243	1,546,370	767,133	(a)	372,145	(a)	6,664,931
Effective capacity .. "	2,755,403	1,492,677	626,922	(a)	366,648	(a)	6,358,282
Horse-power equivalent—							
Total installed .. H.P.	3,824,715	2,072,878	1,028,326	(a)	498,853	(a)	8,934,207
Effective capacity .. "	3,693,563	2,000,904	840,376	(a)	491,484	(a)	8,523,159

(a) Not available for publication; figures are included in total for Australia.

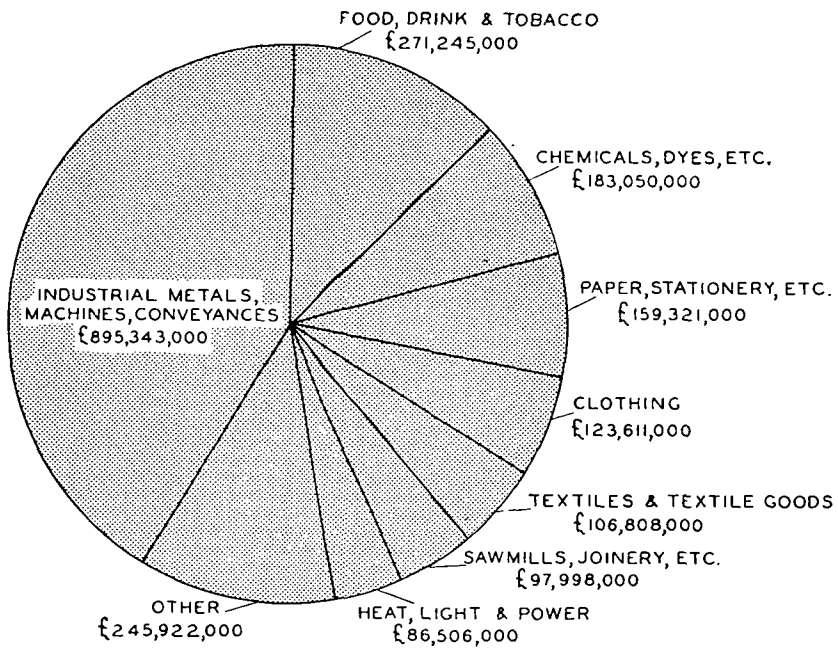
**§ 5. Employment in Factories**

1. **Number Employed.**—(i) *General.* All persons employed in the manufacturing activities of a factory, including proprietors who work in their own business and "out-workers" (see para. 4, p. 198), are counted as factory employees, while those employed in selling and distributing, such as salesmen, travellers, collectors, carters employed solely on outward delivery of manufactured goods and retailing storemen, are excluded. From 1945-46 the occupational groupings collected were—(i) working proprietors; (ii) managerial and clerical staff including salaried managers and working directors; (iii) chemists, draftsmen and other laboratory and research staff; (iv) foremen and overseers; (v) skilled and unskilled workers; (vi) carters (excluding delivery only), messengers and persons working regularly at home; but from 1960-61 the last three categories were amalgamated into one group—(iv) foremen and overseers, workers in factory and others.

# VALUE OF PRODUCTION AND AVERAGE EMPLOYMENT IN AUSTRALIAN FACTORIES, 1920-21 TO 1960-61



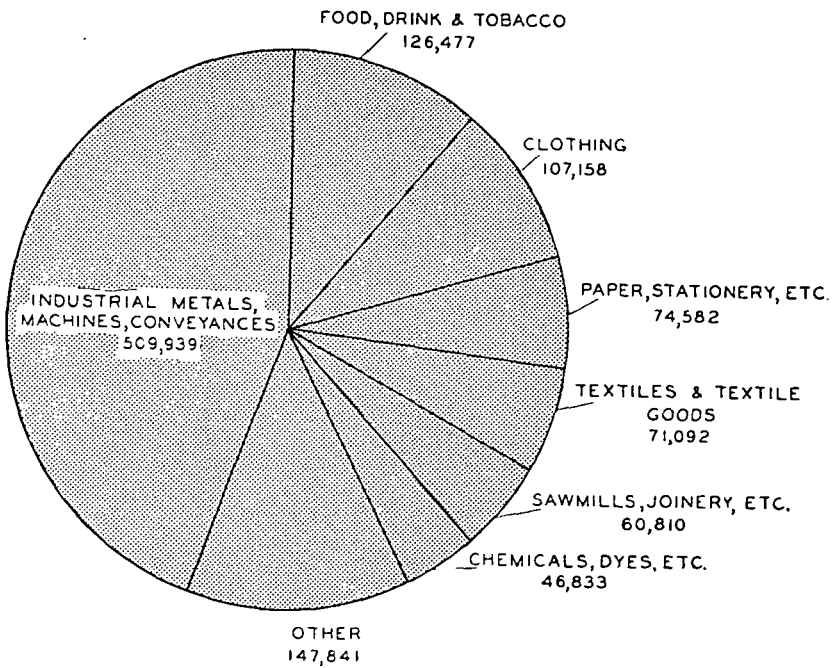
VALUE OF PRODUCTION\*  
OF AUSTRALIAN FACTORIES  
BY INDUSTRIAL CLASS, 1960-61



\* "VALUE OF PRODUCTION" IS THE VALUE ADDED IN THE PROCESS OF MANUFACTURE

ALL CLASSES - £2,169,804,000

AVERAGE NUMBER OF PERSONS EMPLOYED\*  
IN AUSTRALIAN FACTORIES  
BY INDUSTRIAL CLASS, 1960-61



\* AVERAGE OVER WHOLE YEAR INCLUDING WORKING PROPRIETORS

ALL CLASSES - 1,144,732



Statistics of factory employment represent the equivalent average number employed over a full year of fifty-two weeks except for the classification of factories according to the number of persons employed (*see* § 3, p. 186), which is based on the average number employed over the period worked.

(ii) *Australia.* Particulars of the numbers employed, the increase in employment and the rate per cent. of such increase are given for the years 1956-57 to 1960-61 in the following table.

## FACTORIES: EMPLOYMENT, AUSTRALIA

Year	Males			Females			Persons		
	Number employed	Increase on preceding year		Number employed	Increase on preceding year		Number employed	Increase on preceding year	
		Number	Per cent.		Number	Per cent.		Number	Per cent.
1956-57 ..	813,551	1,704	0.21	249,847	1,196	0.48	1,063,398	2,900	0.27
1957-58 ..	822,515	8,964	1.10	251,292	1,445	0.58	1,073,807	10,409	0.98
1958-59 ..	834,940	12,425	1.51	253,316	2,024	0.81	1,088,256	14,449	1.35
1959-60 ..	862,185	27,245	3.26	269,492	16,176	6.39	1,131,677	43,421	3.99
1960-61 ..	872,100	9,915	1.15	272,632	3,140	1.17	1,144,732	13,055	1.15

(iii) *States.* The following table shows, for the same years, the average number of persons employed in manufacturing industries in each State; the percentage for each State of the total number employed in factories in Australia; and the number so employed per thousand of mean population in each State and Australia.

## FACTORIES: EMPLOYMENT

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
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## AVERAGE NUMBER EMPLOYED DURING FULL YEAR (52 WEEKS)

1956-57 ..	436,369	355,204	103,426	91,981	48,748	27,670	1,063,398
1957-58 ..	445,802	357,143	101,844	92,472	48,462	28,084	1,073,807
1958-59 ..	449,518	362,979	104,753	94,165	48,417	28,424	1,088,256
1959-60 ..	467,139	381,514	104,693	99,018	49,651	29,662	1,131,677
1960-61 ..	472,061	387,430	104,462	99,955	50,666	30,158	1,144,732

## PERCENTAGE OF AUSTRALIAN TOTAL

1956-57 ..	41.04	33.40	9.73	8.65	4.58	2.60	100
1957-58 ..	41.51	33.26	9.48	8.61	4.52	2.62	100
1958-59 ..	41.31	33.35	9.63	8.65	4.45	2.61	100
1959-60 ..	41.28	33.71	9.25	8.75	4.39	2.62	100
1960-61 ..	41.24	33.85	9.13	8.73	4.43	2.62	100

FACTORIES: EMPLOYMENT—*continued*

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
PER 1,000 OF POPULATION							
1956-57 ..	122	135	74	107	72	85	112
1957-58 ..	122	133	72	104	70	85	110
1958-59 ..	121	132	72	104	69	84	109
1959-60 ..	123	135	71	106	69	86	111
1960-61 ..	120	131	68	102	68	85	108

2. Rates of Increase, 1956-57 to 1960-61.—The percentage increase on the average number of persons employed in the preceding year is shown below for each State.

## FACTORIES: ANNUAL PERCENTAGE INCREASE OF PERSONS EMPLOYED

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
1956-57 ..	0.75	0.00	0.93	-0.66	-2.71	2.25	0.27
1957-58 ..	2.18	0.55	-1.53	0.53	-0.59	1.50	0.98
1958-59 ..	0.83	1.63	2.86	1.83	-0.09	1.21	1.35
1959-60 ..	3.92	5.11	-0.06	5.15	2.55	4.36	3.99
1960-61 ..	1.05	1.55	-0.22	0.95	2.04	1.67	1.15

NOTE.—Minus sign (—) indicates decrease.

3. Persons Employed in Industrial Classes.—(i) *Australia*. The following table shows the average number of persons employed in factories in each industrial class in Australia for the years 1956-57 to 1960-61.

## FACTORIES: PERSONS EMPLOYED IN INDUSTRIAL CLASSES, AUSTRALIA

Class of industry	1956-57	1957-58	1958-59	1959-60	1960-61
I. Treatment of non-metalliferous mine and quarry products .. ..	20,318	20,883	21,093	21,778	23,363
II. Bricks, pottery, glass, etc. .. ..	22,162	22,448	23,093	24,308	24,612
III. Chemicals, dyes, explosives, paints, oils, grease .. ..	45,753	46,986	47,876	47,617	46,833
IV. Industrial metals, machines, conveyances .. ..	447,405	459,345	469,446	498,192	509,939
V. Precious metals, jewellery, plate .. ..	6,053	5,905	5,483	5,308	5,342
VI. Textiles and textile goods (not dress) .. ..	70,176	68,875	67,467	72,263	71,092
VII. Skins and leather (not clothing or footwear) .. ..	13,454	13,171	12,935	12,952	12,310
VIII. Clothing (except knitted) .. ..	109,266	106,947	106,098	106,830	107,158
IX. Food, drink and tobacco .. ..	124,723	123,471	125,408	126,154	126,477
X. Sawmills, joinery, boxes, etc., wood turning and carving .. ..	60,008	59,238	60,101	61,651	60,810
XI. Furniture of wood, bedding, etc. .. ..	21,258	22,099	22,110	22,902	22,219
XII. Paper, stationery, printing, bookbinding, etc. .. ..	64,719	66,285	68,327	71,672	74,582
XIII. Rubber .. ..	17,844	18,105	18,467	18,663	18,395
XIV. Musical instruments .. ..	1,902	1,101	1,025	936	812
XV. Miscellaneous products .. ..	21,746	22,332	22,286	23,851	24,757
<i>Total, Classes I. to XV. .. ..</i>	<i>1,046,787</i>	<i>1,057,191</i>	<i>1,071,215</i>	<i>1,115,077</i>	<i>1,128,701</i>
XVI. Heat, light and power .. ..	16,611	16,616	17,041	16,600	16,031
<b>Grand Total .. ..</b>	<b>1,063,398</b>	<b>1,073,807</b>	<b>1,088,256</b>	<b>1,131,677</b>	<b>1,144,732</b>

(ii) *States.* Particulars of the numbers employed in each industrial class are shown for each State in the following table.

**FACTORIES: PERSONS EMPLOYED IN INDUSTRIAL CLASSES, 1960-61**

Class of industry	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of non-metalliferous mine and quarry products	9,512	6,977	2,223	2,308	1,600	743	23,363
II. Bricks, pottery, glass, etc.	12,415	6,569	1,461	2,290	1,465	412	24,612
III. Chemicals, dyes, explosives, paints, oils, grease	23,088	15,443	1,753	2,976	2,703	870	46,833
IV. Industrial metals, machines, conveyances	226,766	157,202	38,370	56,447	21,124	10,030	509,939
V. Precious metals, jewellery, plate	2,248	2,087	299	464	206	38	5,342
VI. Textiles and textile goods (not dress)	21,772	40,395	2,223	2,530	911	3,261	71,092
VII. Skins and leather (not clothing or footwear)	5,312	3,992	1,185	1,147	607	67	12,310
VIII. Clothing (except knitted)	44,892	45,462	7,717	5,087	3,162	838	107,158
IX. Food, drink and tobacco	39,744	38,361	25,650	10,902	7,109	4,711	126,477
X. Sawmills, joinery, boxes, etc., wood turning and carving	20,574	15,623	10,157	5,094	5,544	3,818	60,810
XI. Furniture of wood, bedding, etc.	9,178	6,309	2,757	2,186	1,380	409	22,219
XII. Paper, stationery, printing, bookbinding, etc.	31,476	25,228	6,153	4,612	2,812	4,301	74,582
XIII. Rubber	7,595	7,359	1,835	1,228	252	126	18,395
XIV. Musical instruments	496	216	39	29	32	..	812
XV. Miscellaneous products	11,277	11,261	665	871	517	166	24,757
<i>Total, Classes I. to XV.</i>	<i>466,345</i>	<i>382,484</i>	<i>102,487</i>	<i>98,171</i>	<i>49,424</i>	<i>29,790</i>	<i>1,128,701</i>
XVI. Heat, light and power	5,716	4,946	1,975	1,784	1,242	368	16,031
<b>Grand Total</b>	<b>472,061</b>	<b>387,430</b>	<b>104,462</b>	<b>99,955</b>	<b>50,666</b>	<b>30,158</b>	<b>1,144,732</b>

4. **Persons Employed According to Occupational Grouping.**—In the following table, the average number of persons employed in each State during 1960-61 is classified according to occupational grouping. As mentioned previously, persons employed in factories are now classified on a basis different from that adopted prior to 1960-61. The nature of this change is indicated in para. 1 of this section (*see p. 190*).

**FACTORIES: PERSONS EMPLOYED—OCCUPATIONAL GROUPING, 1960-61**

State	Average number of persons employed				
	Working proprietors	Managerial and clerical staff, etc.(a)	Chemists, draftsmen, etc.	Foremen and overseers, workers in factory and others(b)	Total
New South Wales .. ..	15,024	61,117	8,088	387,832	472,061
Victoria .. ..	13,223	48,010	7,112	319,085	387,430
Queensland .. ..	5,067	11,334	1,219	86,842	104,462
South Australia .. ..	3,700	12,478	1,913	81,864	99,955
Western Australia .. ..	2,762	4,775	554	42,575	50,666
Tasmania .. ..	1,025	3,163	625	25,345	30,158
<i>Total Males</i> .. ..	<i>34,807</i>	<i>87,010</i>	<i>17,646</i>	<i>732,637</i>	<i>872,100</i>
<i>Total Females</i> .. ..	<i>5,994</i>	<i>53,867</i>	<i>1,865</i>	<i>210,906</i>	<i>272,632</i>
<b>Total Persons</b> .. ..	<b>40,801</b>	<b>140,877</b>	<b>19,511</b>	<b>943,543</b>	<b>1,144,732</b>

(a) Includes salaried managers and working directors at home.

(b) Includes persons working regularly



The term "outworker" or "homeworker" has acquired a special meaning in connexion with manufacturing industries, and includes only persons to whom work is given out by factories to be done at home. Persons working regularly at home for factories are included in the group foremen, overseers, workers in factory and others, and separate details are not available.

5. Monthly Employment, 1956-57 to 1960-61.—(i) *Australia.* The following table shows the number of persons (excluding working proprietors) employed in factories on the last pay-day of the month during the years 1956-57 to 1960-61.

**FACTORIES: MONTHLY EMPLOYMENT, AUSTRALIA**  
(EXCLUDING WORKING PROPRIETORS)

Month	1956-57	1957-58	1958-59	1959-60	1960-61
<b>MALES</b>					
July .. ..	775,580	781,156	794,374	811,912	844,659
August .. ..	774,506	780,630	794,537	814,297	846,325
September .. ..	774,119	782,988	795,464	817,277	848,593
October .. ..	774,455	785,289	796,964	820,178	849,211
November .. ..	777,127	785,825	799,368	821,316	849,265
December .. ..	772,479	781,054	792,351	817,217	843,037
January .. ..	773,419	786,520	794,996	824,919	843,995
February .. ..	779,646	790,835	800,208	831,022	878,482
March .. ..	780,973	793,327	802,408	835,371	829,781
April .. ..	777,262	791,617	804,259	835,236	823,500
May .. ..	779,757	791,403	804,691	839,084	818,065
June .. ..	780,156	791,098	805,641	840,832	810,295
<b>FEMALES</b>					
July .. ..	240,918	242,399	244,610	251,512	270,302
August .. ..	241,429	243,489	245,349	253,864	272,491
September .. ..	243,199	245,019	245,882	257,906	274,698
October .. ..	245,130	246,360	246,199	260,105	275,647
November .. ..	245,006	247,805	247,098	262,514	276,226
December .. ..	242,175	244,653	244,235	259,753	271,401
January .. ..	243,191	245,340	243,625	260,749	267,386
February .. ..	248,336	250,891	249,847	267,234	269,012
March .. ..	250,728	252,918	250,384	270,364	263,623
April .. ..	245,873	247,439	249,209	267,916	256,478
May .. ..	244,054	245,855	248,365	269,200	250,137
June .. ..	242,966	244,052	248,915	270,402	245,088
<b>PERSONS</b>					
July .. ..	1,016,498	1,023,555	1,038,984	1,063,424	1,114,961
August .. ..	1,015,935	1,024,119	1,039,886	1,068,161	1,118,816
September .. ..	1,017,318	1,028,007	1,041,346	1,075,183	1,123,291
October .. ..	1,019,585	1,031,649	1,043,163	1,080,283	1,124,858
November .. ..	1,022,133	1,033,630	1,046,466	1,083,830	1,125,491
December .. ..	1,014,654	1,025,707	1,036,586	1,076,970	1,114,438
January .. ..	1,016,610	1,031,860	1,038,621	1,085,668	1,111,381
February .. ..	1,027,982	1,041,726	1,050,055	1,098,256	1,107,494
March .. ..	1,031,701	1,046,245	1,052,792	1,105,735	1,093,404
April .. ..	1,023,135	1,039,056	1,053,468	1,103,152	1,079,978
May .. ..	1,023,811	1,037,258	1,053,056	1,108,284	1,068,202
June .. ..	1,023,122	1,035,150	1,054,556	1,111,234	1,055,383

(ii) *States.* Particulars of the numbers employed in each State on the last pay-day of each month in 1960-61 are shown in the following table.

**FACTORIES: MONTHLY EMPLOYMENT, 1960-61**  
(EXCLUDING WORKING PROPRIETORS)

Month	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
MALES							
July .. ..	344,513	269,700	86,526	79,404	40,845	23,671	844,659
August .. ..	345,738	270,833	85,387	79,660	40,998	23,709	846,325
September .. ..	347,008	271,334	85,053	80,087	41,449	23,662	848,593
October .. ..	347,364	272,309	84,245	80,348	41,261	23,684	849,211
November .. ..	348,236	273,150	82,313	80,263	41,490	23,813	849,265
December .. ..	346,829	272,613	77,916	80,209	41,351	24,119	843,037
January .. ..	346,034	272,972	78,985	80,376	41,413	24,215	843,995
February .. ..	344,468	270,511	79,760	78,487	41,200	24,056	838,482
March .. ..	341,184	266,684	79,261	77,555	41,177	23,920	829,781
April .. ..	337,879	263,925	79,787	77,182	41,074	23,653	823,500
May .. ..	334,673	260,130	82,279	76,641	40,783	23,559	818,065
June .. ..	332,306	255,644	82,890	75,628	40,344	23,483	810,295
FEMALES							
July .. ..	117,397	105,804	17,475	17,676	6,503	5,447	270,302
August .. ..	117,926	106,750	18,260	17,920	6,542	5,093	272,491
September .. ..	119,208	107,752	18,048	18,094	6,647	4,949	274,698
October .. ..	119,616	108,561	17,669	18,140	6,699	4,962	275,647
November .. ..	119,811	108,972	17,498	18,118	6,782	5,045	276,226
December .. ..	117,047	107,185	17,274	17,750	6,743	5,402	271,401
January .. ..	114,371	105,644	16,965	18,430	6,531	5,445	267,386
February .. ..	113,725	108,085	17,332	17,832	6,527	5,511	269,012
March .. ..	111,334	106,232	16,869	17,165	6,617	5,406	263,623
April .. ..	108,432	102,961	16,333	16,513	6,697	5,542	256,478
May .. ..	106,756	98,817	16,411	16,081	6,628	5,444	250,137
June .. ..	105,185	96,186	16,432	15,690	6,297	5,298	245,088
PERSONS							
July .. ..	461,910	375,504	104,001	97,080	47,348	29,118	1,114,961
August .. ..	463,664	377,583	103,647	97,580	47,540	28,802	1,118,816
September .. ..	466,216	379,086	103,101	98,181	48,096	28,611	1,123,291
October .. ..	466,980	380,870	101,914	98,488	47,960	28,646	1,124,858
November .. ..	468,047	382,122	99,811	98,381	48,272	28,858	1,125,491
December .. ..	463,876	379,798	95,190	97,959	48,094	29,521	1,114,438
January .. ..	460,405	378,616	95,950	98,806	47,944	29,660	1,111,381
February .. ..	458,193	378,596	97,092	96,319	47,727	29,567	1,107,494
March .. ..	452,518	372,916	96,130	94,720	47,794	29,326	1,093,404
April .. ..	446,311	366,886	96,120	93,695	47,771	29,195	1,079,978
May .. ..	441,429	358,947	98,690	92,722	47,411	29,003	1,068,202
June .. ..	437,491	351,830	99,322	91,318	46,641	28,781	1,055,383

6. **Distribution of Employees According to Age.**—The extension of statistics of employment in factories, decided upon at the Conference of Australian Statisticians held in 1945, provided for a distribution of employees (excluding working proprietors) into seven age-groups from 1945-46 onwards, instead of three as in previous years. From 1960-61, however, the distribution into three groups has been re-introduced. The particulars are collected as at June. The numbers employed in each age-group on the last pay-day in June, 1960 and 1961, are given below.

**FACTORIES: DISTRIBUTION OF EMPLOYEES BY AGE**  
(EXCLUDING WORKING PROPRIETORS)

Age group	June, 1960			June, 1961		
	Males	Females	Persons	Males	Females	Persons
Under 16 years ..	8,627	7,457	16,084	8,849	7,162	16,011
16 years ..	14,475	9,800	24,275	79,941	44,432	124,373
17 " ..	16,846	10,411	27,257			
18 " ..	17,963	10,370	28,333			
19 " ..	16,993	9,446	26,439			
20 " ..	15,739	8,818	24,557			
21 " and over ..	750,189	214,100	964,289	721,505	193,494	914,999
Total ..	840,832	270,402	1,111,234	810,295	245,088	1,055,383

The following table shows the age distribution in sexes for Australia in June in the years 1957 to 1961.

**FACTORIES: DISTRIBUTION OF EMPLOYEES BY AGE, AUSTRALIA**  
(EXCLUDING WORKING PROPRIETORS)

June—	Under 16 years	16 years	17 years	18 years	19 years	20 years	21 years and over	Total
MALES								
1957 ..	9,158	13,310	15,289	16,104	15,219	14,162	696,914	780,156
1958 ..	8,710	13,817	16,347	16,802	16,337	15,315	703,770	791,098
1959 ..	8,411	13,556	16,532	17,085	16,099	15,189	718,769	805,641
1960 ..	8,627	14,475	16,846	17,963	16,993	15,739	750,189	840,832
1961 ..	8,849	79,941					721,505	810,295
FEMALES								
1957 ..	6,828	8,292	9,276	9,715	8,986	7,959	191,910	242,966
1958 ..	6,924	9,180	9,790	10,025	9,421	8,737	189,975	244,052
1959 ..	7,234	8,957	9,878	9,639	9,069	8,468	195,670	248,915
1960 ..	7,457	9,800	10,411	10,370	9,446	8,818	214,100	270,402
1961 ..	7,162	44,432					193,494	245,088
PERSONS								
1957 ..	15,986	21,602	24,565	25,819	24,205	22,121	888,824	1,023,122
1958 ..	15,634	22,997	26,137	26,827	25,758	24,052	893,745	1,035,150
1959 ..	15,645	22,513	26,410	26,724	25,168	23,657	914,439	1,054,556
1960 ..	16,084	24,275	27,257	28,333	26,439	24,557	964,289	1,111,234
1961 ..	16,011	124,373					914,999	1,055,383

## § 6. Sex Distribution in Factories

1. Average Number of Males and Females Employed.—The following table shows the average number of males and females employed in factories in each State for the years 1956-57 to 1960-61.

## FACTORIES: MALES AND FEMALES EMPLOYED

State	1956-57	1957-58	1958-59	1959-60	1960-61
MALES					
New South Wales .. ..	329,386	337,211	340,757	351,208	355,392
Victoria .. ..	258,119	259,404	263,847	275,315	279,675
Queensland .. ..	85,899	84,871	87,454	86,985	86,488
South Australia .. ..	75,543	75,909	77,427	81,312	81,898
Western Australia .. ..	42,122	42,039	41,951	42,957	43,836
Tasmania .. ..	22,482	23,081	23,504	24,408	24,811
Australia .. ..	813,551	822,515	834,940	862,185	872,100

FEMALES					
New South Wales .. ..	106,983	108,591	108,761	115,931	116,669
Victoria .. ..	97,085	97,739	99,132	106,199	107,755
Queensland .. ..	17,527	16,973	17,299	17,708	17,974
South Australia .. ..	16,438	16,563	16,738	17,706	18,057
Western Australia .. ..	6,626	6,423	6,466	6,694	6,830
Tasmania .. ..	5,188	5,003	4,920	5,254	5,347
Australia .. ..	249,847	251,292	253,316	269,492	272,632

2. Rate of Variation for each Sex.—The percentages of increase or decrease on the average numbers of males and females employed in the preceding year are shown below for the years 1956-57 to 1960-61.

## FACTORIES: ANNUAL PERCENTAGE INCREASES OF MALES AND FEMALES EMPLOYED

State	1956-57	1957-58	1958-59	1959-60	1960-61
MALES					
New South Wales .. ..	0.70	2.38	1.05	3.07	1.19
Victoria .. ..	0.04	0.50	1.71	4.35	1.58
Queensland .. ..	0.91	-1.20	3.04	-0.54	-0.57
South Australia .. ..	-0.79	0.48	2.00	5.02	0.72
Western Australia .. ..	-2.81	-0.20	-0.21	2.40	2.05
Tasmania .. ..	1.60	2.66	1.83	3.85	1.65
Australia .. ..	0.21	1.10	1.51	3.26	1.15

FEMALES					
New South Wales .. ..	0.95	1.50	0.16	6.59	0.64
Victoria .. ..	-0.10	0.88	1.43	7.13	1.47
Queensland .. ..	1.02	-3.16	1.92	2.36	1.50
South Australia .. ..	-0.04	0.76	1.06	5.78	1.98
Western Australia .. ..	-2.10	-3.06	0.67	3.53	2.03
Tasmania .. ..	5.15	-3.57	-1.66	6.79	1.77
Australia .. ..	0.48	0.58	0.81	6.39	1.17

NOTE.—Minus sign (—) indicates decrease.

3. **Masculinity of Persons Employed in Factories.**—The following table shows, for the years 1956–57 to 1960–61, the proportion of males to females employed in factories in each State.

**FACTORIES: MASCULINITY(a) OF PERSONS EMPLOYED**

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
1956–57 .. ..	308	266	490	460	636	433	326
1957–58 .. ..	311	265	500	458	655	461	327
1958–59 .. ..	313	266	506	463	649	478	330
1959–60 .. ..	303	259	491	459	642	465	320
1960–61 .. ..	305	260	481	454	642	464	320

(a) Number of males per 100 females.

4. **Employment of Females in Particular Industries.**—(i) *General.* The majority of females in manufacturing industries are employed in four classes, namely:—IV., Industrial Metals, Machines, etc.; VI., Textiles; VIII., Clothing; and IX., Food, Drink and Tobacco. In 1960–61, these industries accounted for 78.30 per cent. of all females in factories. In two classes only did the number of females exceed the number of males, namely, in Class VI., Textiles, where there were 141 females to every 100 males, and in Class VIII., Clothing, with 245 females to every 100 males. The following table shows the average number of males and females employed in each of the four classes in 1960–61.

**MALES AND FEMALES EMPLOYED IN PARTICULAR INDUSTRIES, 1960-61**

Class	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
<b>MALES</b>							
IV. Industrial metals, etc. ..	196,844	136,932	35,839	49,852	20,051	9,490	449,008
VI. Textiles and textile goods (not dress) ..	8,938	16,545	827	1,227	489	1,436	29,462
VIII. Clothing (except knitted) ..	11,909	13,874	2,124	1,759	1,022	346	31,034
IX. Food, drink and tobacco ..	27,256	26,725	21,225	7,687	5,555	3,256	91,704
All other classes ..	110,445	85,599	26,473	21,373	16,719	10,283	270,892
<b>Total .. ..</b>	<b>355,392</b>	<b>279,675</b>	<b>86,488</b>	<b>81,898</b>	<b>43,836</b>	<b>24,811</b>	<b>872,100</b>
<b>FEMALES</b>							
IV. Industrial metals, etc. ..	29,922	20,270	2,531	6,595	1,073	540	60,931
VI. Textiles and textile goods (not dress) ..	12,834	23,850	1,396	1,303	422	1,825	41,630
VIII. Clothing (except knitted) ..	32,983	31,588	5,593	3,328	2,140	492	76,124
IX. Food, drink and tobacco ..	12,488	11,636	4,425	3,215	1,554	1,455	34,773
All other classes ..	28,442	20,411	4,029	3,616	1,641	1,035	59,174
<b>Total .. ..</b>	<b>116,669</b>	<b>107,755</b>	<b>17,974</b>	<b>18,057</b>	<b>6,830</b>	<b>5,347</b>	<b>272,632</b>

(ii) *Females Employed in Clothing Manufacture.* The employment of females in the several industries of Class VIII., Clothing, the class in which the largest number of females is employed, and the relation of their number to that of the males so employed, are shown in the following table.

## EMPLOYMENT IN CLOTHING INDUSTRIES: FEMININITY(a), 1960-61

Industry	New South Wales			Victoria			Other States		
	Males	Fe- males	Femi- ninity (a)	Males	Fe- males	Femi- ninity (a)	Males	Fe- males	Femi- ninity (a)
Tailoring and ready-made clothing ..	3,091	15,858	513	2,903	7,885	272	964	3,189	331
Waterproof and oilskin clothing ..	121	549	454	177	430	243	3	1	33
Dressmaking, hemstitching ..	106	945	892	1,094	7,202	658	137	2,343	1,710
Millinery ..	209	1,216	582	123	561	456	41	426	1,039
Shirts, collars, underclothing ..	464	4,790	1,032	585	4,972	850	150	1,903	1,269
Foundation garments ..	118	1,375	1,165	271	1,650	609	26	223	858
Handkerchiefs, ties and scarves ..	169	1,105	654	67	295	440	27	185	685
Hats and caps ..	423	421	100	68	133	196	24	113	471
Gloves ..	136	457	336	41	162	395	46	132	287
Boots and shoes (not rubber) ..	3,115	3,350	108	5,387	6,182	115	1,458	1,205	83
Boot and shoe repairing ..	1,400	138	10	989	97	10	823	69	8
Boot and shoe accessories ..	249	147	59	540	242	45	74	19	26
Umbrellas and walking sticks ..	34	78	230	26	77	296	22	41	186
Dyeworks and cleaning (including renovating and repairing) ..	2,237	2,254	101	1,527	1,453	95	1,453	1,695	117
Other ..	37	300	811	76	247	325	3	9	300
<b>Total ..</b>	<b>11,909</b>	<b>32,983</b>	<b>277</b>	<b>13,874</b>	<b>31,588</b>	<b>228</b>	<b>5,251</b>	<b>11,553</b>	<b>220</b>

(a) Number of females per 100 males.

## § 7. Children Employed in Factories

1. Number of Children Employed, 1959 to 1961.—In the returns for the various States, the term "child" denotes any person under sixteen years of age. The following table shows the number of children of each sex employed in manufacturing industries in June of the years 1959 to 1961.

## FACTORIES: CHILDREN(a) EMPLOYED

State	June—1959			June—1960			June—1961		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
New South Wales	2,453	2,175	4,628	2,625	2,219	4,844	2,710	2,009	4,719
Victoria ..	2,595	2,535	5,130	2,573	2,664	5,237	2,707	2,586	5,293
Queensland ..	1,571	1,226	2,797	1,592	1,271	2,863	1,478	1,318	2,796
South Australia	860	829	1,689	883	883	1,766	878	804	1,682
Western Australia	822	331	1,153	863	332	1,195	947	350	1,297
Tasmania ..	110	138	248	91	88	179	129	95	224
<b>Australia ..</b>	<b>8,411</b>	<b>7,234</b>	<b>15,645</b>	<b>8,627</b>	<b>7,457</b>	<b>16,084</b>	<b>8,849</b>	<b>7,162</b>	<b>16,011</b>

(a) Under sixteen years of age.

2. **Industries Employing Children.**—The distribution of children employed in factories in June, 1961, and the proportion of children employed to total employees are shown in the following table by the main classes of industry employing persons under sixteen years of age.

**FACTORIES: CHILDREN<sup>(a)</sup> EMPLOYED, BY CLASSES, AUSTRALIA, JUNE, 1961**

Class of industry	Children employed (a)		Total employees (b)		Proportion (per cent.) of children employed to total employees (b)	
	Males	Females	Males	Females	Males	Females
Industrial metals, machines, conveyances .. .. .	4,172	689	417,718	52,411	1.00	1.31
Textiles and textile goods (not dress) .. .. .	333	1,080	26,462	35,537	1.26	3.04
Clothing (except knitted) .. .. .	637	3,097	25,183	70,209	2.53	4.41
Food, drink and tobacco .. .. .	1,132	927	88,582	32,083	1.28	2.89
Sawmills, joinery, boxes, etc. .. .. .	703	78	50,435	3,159	1.39	2.47
Furniture of wood, bedding, etc. .. .. .	362	83	14,828	3,941	2.44	2.11
Paper, stationery, printing, bookbinding, etc. .. .. .	699	725	53,037	19,053	1.32	3.81
All other industries .. .. .	811	483	134,050	28,695	0.60	1.68
<b>Total .. .. .</b>	<b>8,849</b>	<b>7,162</b>	<b>810,295</b>	<b>245,088</b>	<b>1.09</b>	<b>2.92</b>

(a) Under sixteen years of age.

(b) Excludes working proprietors.

3. **Apprenticeship.**—Acts are in force in all States for the regulation of the age at which children may be employed in gainful occupations. Legislative provision is also made for the regulation of apprenticeship under the various State Factories Acts or Arbitration Acts. These Acts, while laying down general principles, leave to the wages tribunals the actual determination of the conditions under which apprentices may be employed.

## § 8. Value of Production, Materials Used, Salaries and Wages

**Note.**—In all tables relating to salaries and wages paid in factories, the amounts drawn by working proprietors are excluded.

1. **General.**—The gross value of factory output for 1960–61 was £5,217 million, of which £2,858 million was the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and £189 million the value of the power, fuel, light, water and lubricating oil used. The difference between the sum of the last two amounts and the gross value of output, namely, £2,170 million, represents the net value of factory production, defined as “the value of consumable commodities produced during the year, deducting so far as possible the value of goods consumed in process of production”. Depreciation, however, is not deducted (see para. 6 of this section, p. 211). The gross value of factory output and the value of materials used each contain inherent elements of duplication, as the output of some factories becomes the materials used in other factories. They therefore have little statistical significance. The net value of factory production indicates the relative importance of manufacturing in the Australian economy in current money terms. The total amount of salaries and wages paid in factories in 1960–61 was £1,144 million, excluding amounts drawn by working proprietors.

2. **Salaries and Wages Paid.**—(i) *In Classes of Industry, 1960–61.* The amounts of salaries and wages paid in the various classes of industry in each State are shown in the following table.

FACTORIES: SALARIES AND WAGES PAID, 1960-61

(£'000)

Class of industry	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of non-metalliferous mine and quarry products .. ..	11,377	8,202	2,285	2,491	1,540	813	26,708
II. Bricks, pottery, glass, etc. ..	13,994	7,151	1,455	2,408	1,403	428	26,839
III. Chemicals, dyes, explosives, paints, oils, grease ..	27,007	18,274	1,753	3,135	3,030	1,087	54,286
IV. Industrial metals, machines, conveyances ..	252,066	169,925	34,530	59,212	18,920	10,549	545,202
V. Precious metals, jewellery, plate ..	2,060	1,965	228	382	150	28	4,813
VI. Textiles and textile goods (not dress) ..	18,633	33,987	1,550	2,061	731	2,696	59,658
VII. Skins and leather (not clothing or footwear) ..	5,123	3,652	1,036	1,134	562	67	11,574
VIII. Clothing (except knitted) ..	31,402	33,537	4,400	3,348	1,769	556	75,012
IX. Food, drink and tobacco ..	37,948	36,863	23,970	9,533	6,295	4,297	118,906
X. Sawmills, joinery, boxes, etc., wood turning and carving ..	19,876	15,165	8,586	4,593	4,822	3,438	56,480
XI. Furniture of wood, bedding, etc. ..	8,756	5,527	2,091	1,740	1,041	312	19,467
XII. Paper, stationery, printing, bookbinding, etc. ..	34,577	27,854	6,019	4,603	2,744	5,306	81,103
XIII. Rubber ..	8,489	7,993	1,519	1,437	228	119	19,785
XIV. Musical instruments ..	489	213	26	19	25	..	772
XV. Miscellaneous products ..	11,142	10,756	505	723	377	128	23,631
<i>Total, Classes I. to XV.</i> ..	<i>482,939</i>	<i>381,064</i>	<i>89,953</i>	<i>96,819</i>	<i>43,637</i>	<i>29,824</i>	<i>1,124,236</i>
XVI. Heat, light and power ..	7,077	6,157	2,206	2,164	1,490	506	19,600
<b>Grand Total</b> ..	<b>490,016</b>	<b>387,221</b>	<b>92,159</b>	<b>98,983</b>	<b>45,127</b>	<b>30,330</b>	<b>1,143,836</b>

(ii) *Totals and Averages, 1956-57 to 1960-61.* The following table shows the total amount of salaries and wages paid, and the average amount paid per employee in each State, for each year. The figures exclude working proprietors and the amounts drawn by them.

In comparing the figures in the following table, regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, a large number of hands are employed in Class VIII., Clothing, comprising a relatively high percentage of women and children.

FACTORIES: TOTAL AND AVERAGE SALARIES AND WAGES PAID

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
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TOTAL AMOUNT PAID (£'000)

1956-57 .. ..	378,332	296,608	77,780	77,818	36,916	23,636	891,090
1957-58 .. ..	396,692	310,540	78,958	79,844	37,935	25,321	929,290
1958-59 .. ..	413,015	324,336	85,497	83,145	38,732	25,828	970,553
1959-60 .. ..	461,144	370,181	89,367	95,238	41,643	28,786	1,086,359
1960-61 .. ..	490,016	387,221	92,159	98,983	45,127	30,330	1,143,836

AVERAGE PER EMPLOYEE (£)

1956-57 .. ..	900.06	869.21	789.63	872.87	801.95	886.68	871.98
1957-58 .. ..	923.40	904.81	814.86	891.80	829.22	936.70	900.46
1958-59 .. ..	952.82	928.60	856.33	911.89	947.81	942.94	927.13
1959-60 .. ..	1021.03	1005.62	896.09	995.96	890.43	1004.27	996.16
1960-61 .. ..	1072.15	1034.77	927.20	1028.33	942.04	1041.07	1036.14



(iii) *Total and Average Earnings of Males and Females, 1956-57 to 1960-61.* Particulars for these years are given in the following table.

**FACTORIES: TOTAL AND AVERAGE SALARIES AND WAGES—MALES AND FEMALES**

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
<b>MALES</b>							
<b>TOTAL AMOUNT PAID (£'000)</b>							
1956-57 .. ..	318,612	241,587	69,873	69,645	33,895	20,878	754,490
1957-58 .. ..	334,245	253,342	70,954	71,153	34,938	22,516	787,148
1958-59 .. ..	348,302	265,615	77,049	74,268	35,647	23,138	824,019
1959-60 .. ..	387,166	302,678	80,345	85,333	38,276	25,618	919,416
1960-61 .. ..	412,560	317,907	82,669	88,623	41,474	26,952	970,185

<b>AVERAGE PER MALE EMPLOYEE (£)</b>							
1956-57 .. ..	1,010.17	981.79	857.48	953.42	856.63	970.11	970.91
1957-58 .. ..	1,034.19	1,023.48	881.32	970.33	884.66	1,018.45	1,001.28
1958-59 .. ..	1,065.21	1,052.69	926.77	992.28	905.12	1,026.66	1,031.05
1959-60 .. ..	1,145.65	1,145.80	971.95	1,088.21	950.85	1,091.42	1,111.86
1960-61 .. ..	1,204.20	1,183.16	1,006.38	1,125.21	1,005.06	1,130.89	1,158.71

<b>FEMALES</b>							
<b>TOTAL AMOUNT PAID (£'000)</b>							
1956-57 .. ..	59,720	55,020	7,907	8,174	3,021	2,758	136,600
1957-58 .. ..	62,447	57,198	8,004	8,691	2,997	2,805	142,142
1958-59 .. ..	64,713	58,721	8,448	8,877	3,085	2,690	146,534
1959-60 .. ..	73,978	67,503	9,022	9,905	3,367	3,168	166,943
1960-61 .. ..	77,456	69,314	9,490	10,360	3,653	3,378	173,651

<b>AVERAGE PER FEMALE EMPLOYEE (£)</b>							
1956-57 .. ..	569.11	578.14	464.68	507.53	467.32	537.11	557.95
1957-58 .. ..	586.89	597.81	487.69	536.42	479.14	569.66	578.10
1958-59 .. ..	607.71	605.66	505.75	543.49	489.60	554.24	591.74
1959-60 .. ..	650.82	649.38	528.65	575.58	516.95	610.25	633.25
1960-61 .. ..	676.83	656.91	550.13	592.18	550.25	637.26	651.26

(iv) *Managers, Clerical Staff and Other Employees.* The following table shows, for 1960-61, the amounts paid to managerial and clerical staff, including salaried managers and working directors, chemists, draftsmen and other laboratory and research staff, and those paid to other employees. Amounts drawn by working proprietors are excluded in all cases.

FACTORIES: SALARIES AND WAGES PAID TO MANAGERS, CLERICAL STAFF, ETC., AND OTHER EMPLOYEES, AUSTRALIA, 1960-61

Class of industry	Managers, clerical staff, chemists, draftsmen, etc.		All other employees	
	Males	Females	Males	Females
	£'000	£'000	£'000	£'000
I. Treatment of non-metalliferous mine and quarry products .. .. .	3,670	630	22,288	121
II. Bricks, pottery, glass, etc. .. .. .	2,475	577	22,787	1,000
III. Chemicals, dyes, explosives, paints, oils, grease ..	13,433	3,049	33,661	4,141
IV. Industrial metals, machines, conveyances .. .. .	84,575	17,166	419,716	23,745
V. Precious metals, jewellery, plate .. .. .	596	210	3,556	452
VI. Textiles and textile goods (not dress) .. .. .	6,002	2,438	27,177	24,040
VII. Skins and leather (not clothing or footwear) ..	1,387	311	8,060	1,816
VIII. Clothing (except knitted) .. .. .	5,617	3,017	22,766	43,612
IX. Food, drink and tobacco .. .. .	17,206	5,140	80,255	16,305
X. Sawmills, joinery, boxes, etc., wood turning and carving .. .. .	6,387	1,354	48,028	711
XI. Furniture of wood, bedding, etc. .. .. .	2,105	724	14,610	2,029
XII. Paper, stationery, printing, bookbinding, etc. ..	11,319	3,652	57,098	9,034
XIII. Rubber .. .. .	3,042	652	14,257	1,833
XIV. Musical instruments .. .. .	100	24	572	76
XV. Miscellaneous products .. .. .	3,730	1,201	14,222	4,480
Total, Classes I. to XV. .. .. .	161,644	40,145	789,053	133,395
XVI. Heat, light and power .. .. .	1,878	79	17,610	32
Grand Total .. .. .	163,522	40,224	806,663	133,427
	£	£	£	£
Average paid per employee .. .. .	1,562.47	721.74	1,101.04	632.64

3. Power, Fuel and Light Used.—(i) *In Classes of Industry*, 1960-61. The expenditure by factories on power, fuel and light, including the value of lubricants and water, is shown in the following table for each State and Australia for 1960-61.

FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED(a), 1960-61  
(£'000)

Class of industry	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of non-metalliferous mine and quarry products .. .. .	5,903	2,779	884	1,041	498	338	11,443
II. Bricks, pottery, glass, etc. .. .. .	4,192	2,296	567	674	568	176	8,473
III. Chemicals, dyes, explosives, paints, oils, grease .. .. .	6,583	6,021	293	810	2,300	564	16,571
IV. Industrial metals, machines, conveyances .. .. .	43,040	9,584	2,382	5,630	1,466	2,291	64,893
V. Precious metals, jewellery, plate .. .. .	168	158	14	41	12	2	395
VI. Textiles and textile goods (not dress) .. .. .	1,590	2,550	86	212	51	272	4,761
VII. Skins and leather (not clothing or footwear) .. .. .	431	404	82	133	64	6	1,120
VIII. Clothing (except knitted) .. .. .	1,002	953	180	143	86	42	2,406
IX. Food, drink and tobacco .. .. .	6,251	6,131	2,917	1,384	1,119	582	18,384
X. Sawmills, joinery, boxes, etc., wood turning and carving ..	1,659	809	656	303	350	368	4,145
XI. Furniture of wood, bedding, etc. .. .. .	215	130	46	47	25	8	471
XII. Paper, stationery, printing, bookbinding, etc. .. .. .	1,784	2,173	320	474	124	1,751	6,626
XIII. Rubber .. .. .	1,127	1,267	193	162	30	19	2,798
XIV. Musical instruments .. .. .	33	8	1	(b)	(b)	..	42
XV. Miscellaneous products .. .. .	746	1,002	17	47	21	4	1,837
Total, Classes I. to XV. .. .. .	74,724	36,265	8,638	11,101	6,714	6,423	143,865
XVI. Heat, light and power .. .. .	17,538	12,936	6,906	4,082	3,902	14	45,378
Grand Total .. .. .	92,262	49,201	15,544	15,183	10,616	6,437	189,243

(a) Includes value of lubricants and water.

(b) Less than £500.

(ii) *Values of Items, 1960-61.* The following table shows the values of the various items of power, fuel and light used in factories in each State during the year.

**FACTORIES: VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED(a), 1960-61**  
(£'000)

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Coal, black .. ..	19,541	2,398	8,374	(b) 3,901	2,106	1,234	37,554
„ brown .. ..	..	6,511	..	..	..	..	6,511
Brown coal briquettes .. ..	..	7,029	..	..	..	..	7,029
Coke .. ..	16,263	589	351	2,509	223	330	20,265
Wood .. ..	422	514	334	375	440	106	2,191
Fuel oil .. ..	9,805	10,196	1,514	2,513	4,412	979	29,419
Tar (fuel) .. ..	1,725	143	19	95	15	17	2,014
Electricity .. ..	25,639	17,067	3,779	4,330	2,289	3,187	56,291
Gas .. ..	11,348	1,316	223	260	90	42	13,279
Other (charcoal, etc.) .. ..	2,830	601	113	409	471	333	4,757
Water .. ..	3,274	1,895	444	487	316	118	6,534
Lubricating oils .. ..	1,415	942	393	304	254	91	3,399
<b>Total .. ..</b>	<b>92,262</b>	<b>49,201</b>	<b>15,544</b>	<b>15,183</b>	<b>10,616</b>	<b>6,437</b>	<b>189,243</b>

(a) Includes value of lubricants and water.  
of sub-bituminous Leigh Creek coal.

(b) Includes £1,882,585, the value of 958,709 tons

(iii) *Quantities of Fuel Used, 1960-61.* The following table shows the quantities of fuel used in factories in each State during the year.

**FACTORIES: QUANTITIES OF FUEL USED, 1960-61**

Particulars	Unit	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Coal, black .. ..	'000 tons	6,247	387	1,812	(a) 1,337	494	248	10,525
„ brown .. ..	„	..	10,921	..	..	..	..	10,921
Brown coal briquettes .. ..	„	..	1,200	..	..	..	..	1,200
Coke .. ..	„	2,551	47	26	333	18	17	2,992
Wood .. ..	„	211	274	161	229	307	54	1,236
Fuel oil .. ..	'000 gals.	192,645	214,895	18,614	51,432	97,195	14,640	589,421
Tar (fuel) .. ..	„	35,645	2,755	432	2,259	463	293	41,847

(a) Includes 958,709 tons of Leigh Creek coal.

(iv) *Total Value, 1956-57 to 1960-61.* The next table shows the amounts expended on power, fuel and light during these years.

**FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED(a)**  
(£'000)

Year	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	Australia
1956-57 .. ..	71,445	40,381	13,130	14,130	9,225	4,799	153,110
1957-58 .. ..	73,452	42,762	13,152	14,933	9,425	5,074	158,798
1958-59 .. ..	76,275	43,377	14,964	14,590	9,587	5,459	164,252
1959-60 .. ..	87,108	47,140	15,183	15,093	10,071	6,220	180,815
1960-61 .. ..	92,262	49,201	15,544	15,183	10,616	6,437	189,243

(a) Includes value of lubricants and water.

4. *Value of Materials Used.*—(i) *In Classes of Industry, 1960-61.* The value of materials used (which includes the value of containers, packing, etc., the cost of tools replaced and repairs to plant) in factories in Australia in 1960-61 reached £2,858.1 million, or 54.8 per

cent. of the value of the final output (*see* para. 5). The following table shows the value of the materials used in various classes of industry in each State.

FACTORIES: VALUE OF MATERIALS USED, 1960-61(a)  
(£'000)

Class of industry	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of non-metalliferous mine and quarry products ..	42,004	19,764	5,474	5,838	3,201	1,611	77,892
II. Bricks, pottery, glass, etc. ..	12,385	7,369	1,265	2,660	909	299	24,887
III. Chemicals, dyes, explosives, paints, oils, grease ..	135,713	101,278	9,224	11,152	42,419	2,650	302,436
IV. Industrial metals, machines, conveyances ..	559,852	266,332	71,860	112,407	30,499	20,592	1,061,542
V. Precious metals, jewellery, plate ..	2,016	1,964	111	280	82	15	4,468
VI. Textiles and textile goods (not dress) ..	41,572	79,844	5,076	4,570	3,064	6,597	140,723
VII. Skins and leather (not clothing or footwear) ..	15,223	10,079	3,199	4,578	940	330	34,349
VIII. Clothing (except knitted) ..	55,465	54,138	5,016	3,968	2,064	471	121,122
IX. Food, drink and tobacco ..	194,957	203,104	166,409	43,707	33,857	18,376	660,410
X. Sawmills, joinery, boxes, etc., wood turning and carving ..	46,218	31,267	16,702	10,970	7,950	7,570	120,677
XI. Furniture of wood, bedding, etc. ..	18,068	11,479	4,605	3,491	2,267	617	40,527
XII. Paper, stationery, printing, bookbinding, etc. ..	65,060	60,189	9,697	7,389	4,081	9,266	155,682
XIII. Rubber ..	20,216	21,545	3,872	2,090	441	211	48,375
XIV. Musical instruments ..	841	198	25	11	22	..	1,097
XV. Miscellaneous products ..	19,127	22,476	587	1,267	514	78	44,049
Total, Classes I. to XV.	1,228,717	891,026	303,122	214,378	132,310	68,683	2,838,236
XVI. Heat, light and power ..	7,767	6,141	2,555	2,004	1,014	384	19,865
Grand Total ..	1,236,484	897,167	305,677	216,382	133,324	69,067	2,858,101

(a) See para. 1 of this section, p. 204.

(ii) Total Amount, 1956-57 to 1960-61. The following table shows the value of materials used in factories for these years.

FACTORIES: VALUE OF MATERIALS USED(a)  
(£'000)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
1956-57 ..	948,393	707,729	244,974	184,209	104,969	56,909	2,247,183
1957-58 ..	1,016,928	768,459	248,647	183,880	111,525	56,922	2,386,361
1958-59 ..	1,070,862	778,716	280,757	188,358	107,853	58,533	2,485,079
1959-60 ..	1,206,255	875,973	291,388	207,636	119,138	67,609	2,767,999
1960-61 ..	1,236,484	897,167	305,677	216,382	133,324	69,067	2,858,101

(a) See para. 1 of this section, p. 204.

5. Value of Output.—(i) In Classes of Industry, 1960-61. The value of the output of factories in the various classes in each State in 1960-61 is shown in the following table. It represents the selling value at the factory (excluding delivery costs and charges) of goods made or processed during the year, including by-products. In addition, it includes the amount received for other work done such as repair work, assembling and making up for customers. The difference between the sum of the values of the materials and of the power, fuel and light used, and the value of output is the net value of factory production (*see* paras. 1 and 6 of this section).

**FACTORIES: VALUE OF OUTPUT, 1960-61(a)**

(£'000)

Class of industry	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of non-metalliferous mine and quarry products ..	73,243	40,584	11,357	12,727	7,353	3,456	148,720
II. Bricks, pottery, glass, etc. ..	40,263	22,156	4,546	7,912	4,089	1,163	80,129
III. Chemicals, dyes, explosives paints, oils, grease ..	234,809	162,770	15,415	20,955	62,300	5,808	502,057
IV. Industrial metals, machines, conveyances ..	1,033,966	541,464	129,845	210,050	63,195	42,757	2,021,277
V. Precious metals, jewellery, plate ..	5,746	5,356	511	957	403	75	13,048
VI. Textiles and textile goods (not dress) ..	77,991	141,992	7,232	8,642	4,577	11,858	252,292
VII. Skins and leather (not clothing or footwear) ..	23,440	16,473	5,064	6,131	1,935	457	53,500
VIII. Clothing (except knitted) ..	109,183	109,885	12,205	9,402	5,087	1,377	247,139
IX. Food, drink and tobacco ..	300,579	291,629	217,466	63,171	49,435	27,760	950,040
X. Sawmills, joinery, boxes, etc., wood turning and carving ..	83,341	57,451	32,202	18,992	16,718	14,116	222,820
XI. Furniture of wood, bedding, etc. ..	33,204	21,390	8,284	6,568	4,119	1,214	74,779
XII. Paper, stationery, printing, bookbinding, etc. ..	135,504	116,518	21,136	16,495	9,542	22,432	321,627
XIII. Rubber ..	33,800	38,261	7,561	4,993	1,010	473	86,098
XIV. Musical instruments ..	2,390	497	72	49	61	..	3,069
XV. Miscellaneous products ..	40,036	43,201	1,426	2,683	1,210	247	88,803
<i>Total, Classes I. to XV.</i>	<i>2,227,495</i>	<i>1,609,627</i>	<i>474,322</i>	<i>389,727</i>	<i>231,034</i>	<i>133,193</i>	<i>5,065,398</i>
XVI. Heat, light and power ..	68,007	40,023	17,526	11,900	9,536	4,758	151,750
<b>Grand Total ..</b>	<b>2,295,502</b>	<b>1,649,650</b>	<b>491,848</b>	<b>401,627</b>	<b>240,570</b>	<b>137,951</b>	<b>5,217,148</b>

(a) See para. 1 of this section, p. 204.

(ii) *Total, 1956-57 to 1960-61.* The following table shows the value of output in each State during these years.

**FACTORIES: VALUE OF OUTPUT(a)**

(£'000)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
1956-57 ..	1,726,637	1,276,141	396,504	325,105	187,636	110,390	4,022,413
1957-58 ..	1,848,242	1,377,697	405,757	332,098	196,262	113,826	4,273,882
1958-59 ..	1,952,452	1,431,041	451,186	342,758	196,202	118,293	4,491,932
1959-60 ..	2,209,809	1,609,614	468,963	385,702	215,583	134,025	5,023,696
1960-61 ..	2,295,502	1,649,650	491,848	401,627	240,570	137,951	5,217,148

(a) See para. 1 of this section p. 204.

**6. Value of Production.**—(i) *In Classes of Industry, 1960-61.* The value of production for any industry was defined at the Conference of Statisticians at Sydney in 1925 as “the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production”.

In accordance with this definition, it was agreed that a deduction consisting of the costs of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation should be made from the "value of output". Because of the difficulty experienced in securing accurate figures for depreciation, however, it was subsequently decided that no deduction should be made on this account. All the deductions mentioned above, with the exception of depreciation, are included in the items "value of materials used" and "value of fuel used" as defined above. The net value of production as given in the following tables is obtained, therefore, by deducting only "value of materials used" and "value of fuel used" from the "value of output". The value of factory production, therefore, approximates "net value added" in the manufacturing process.

Only certain selected items of costs are recorded in the annual census of production. It must not, therefore, be inferred that, when wages and salaries are deducted from the value of production, the whole of the "surplus" is available for interest and profit, as many miscellaneous expenses such as taxation, insurance, advertising and other overhead charges, as well as depreciation, also have to be taken into account.

The following table shows the value of production in 1960-61 in each State for the various classes of industry.

FACTORIES: VALUE OF PRODUCTION, 1960-61(a)

(£'000)

Class of industry	N.S.W.	Vic.	Q'land	S. Aust.	W. Aus	Tas.	Aust.
I. Treatment of non-metalliferous mine and quarry products ..	25,336	18,041	4,999	5,848	3,655	1,506	59,385
II. Bricks, pottery, glass, etc. ..	23,686	12,491	2,714	4,578	2,612	688	46,769
III. Chemicals, dyes, explosives, paints, oils, grease ..	92,513	55,471	5,897	8,992	17,582	2,595	183,050
IV. Industrial metals, machines, conveyances ..	431,075	265,549	55,602	92,014	31,230	19,873	895,343
V. Precious metals, jewellery, plate ..	3,562	3,234	386	636	309	58	8,185
VI. Textiles and textile goods (not dress) ..	34,830	59,597	2,070	3,861	1,461	4,989	106,808
VII. Skins and leather (not clothing or footwear) ..	7,786	5,989	1,783	1,420	931	122	18,031
VIII. Clothing (except knitted) ..	52,716	54,794	7,009	5,290	2,938	864	123,611
IX. Food, drink and tobacco ..	99,371	82,393	48,140	18,081	14,458	8,802	271,245
X. Sawmills, joinery, boxes, etc., wood turning and carving ..	35,463	25,375	14,844	7,720	8,418	6,178	97,998
XI. Furniture of wood, bedding, etc. ..	14,921	9,781	3,634	3,029	1,827	589	33,781
XII. Paper, stationery, printing, bookbinding, etc. ..	68,659	54,157	11,119	8,632	5,338	11,416	159,321
XIII. Rubber ..	12,457	15,449	3,496	2,741	539	243	34,925
XIV. Musical instruments ..	1,516	291	46	37	39	..	1,929
XV. Miscellaneous products ..	20,163	19,723	822	1,370	675	164	42,917
Total, Classes I. to XV.	924,054	682,335	162,561	164,249	92,012	58,087	2,083,298
XVI. Heat, light and power ..	42,702	20,947	8,066	5,813	4,619	4,359	86,506
Grand Total ..	966,756	703,282	170,627	170,062	96,631	62,446	2,169,804

(a) See para. 1 of this section, p. 204.

(ii) *Total and Averages, 1956-57 to 1960-61.* The value of production and the amount per person employed and per head of population are shown in the following table.

**FACTORIES: VALUE OF PRODUCTION(a)**

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
VALUE (£'000)							
1956-57 .. ..	706,799	528,031	138,400	126,766	73,442	48,682	1,622,120
1957-58 .. ..	757,862	566,476	143,958	133,285	75,312	51,830	1,728,723
1958-59 .. ..	805,315	608,948	155,465	139,810	78,762	54,301	1,842,601
1959-60 .. ..	916,446	686,501	162,392	162,973	86,374	60,196	2,074,882
1960-61 .. ..	966,756	703,282	170,627	170,062	96,631	62,446	2,169,804

**PER PERSON EMPLOYED (£)**

1956-57 .. ..	1,620	1,487	1,343	1,378	1,507	1,759	1,525
1957-58 .. ..	1,700	1,586	1,414	1,441	1,554	1,846	1,610
1958-59 .. ..	1,792	1,678	1,484	1,485	1,627	1,910	1,693
1959-60 .. ..	1,962	1,799	1,551	1,646	1,740	2,029	1,833
1960-61 .. ..	2,048	1,815	1,633	1,701	1,907	2,071	1,895

**PER HEAD OF POPULATION (£)**

1956-57 .. ..	196.93	201.11	99.28	147.16	107.85	149.94	171.18
1957-58 .. ..	207.02	210.81	101.21	150.43	108.59	156.09	178.55
1958-59 .. ..	215.96	221.44	107.18	153.92	111.58	160.36	186.45
1959-60 .. ..	241.40	243.47	109.86	174.56	120.41	174.93	205.65
1960-61 .. ..	249.43	243.06	111.74	173.51	129.57	175.07	208.82

(a) See para. 1 of this section, p. 204.

**§ 9. Value of Land, Buildings, Plant and Machinery**

1. **General.**—The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1960-61.

**FACTORIES: VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY(a), 1960-61**  
(£'000)

Value of—	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Land and buildings	501,793	400,751	84,158	87,729	45,610	73,549	1,193,590
Plant and machinery	607,281	417,918	132,569	113,100	64,306	56,316	1,391,490
<b>Total ..</b>	<b>1,109,074</b>	<b>818,669</b>	<b>216,727</b>	<b>200,829</b>	<b>109,916</b>	<b>129,865</b>	<b>2,585,080</b>

(a) Includes estimated value of rented premises and plant.

The values recorded in this section are generally the values apportioned in the books of the individual firms after allowance has been made for depreciation, but they include estimates of the capital value of premises and plant rented. Consequently, the totals shown in the table do not represent the actual amount of capital invested in the items specified.

2. Value of Land and Buildings.—(i) *Total for Australia.* The following table shows, for Australia as a whole, the approximate value of land and buildings occupied in connexion with manufacturing industries for 1956-57 to 1960-61.

**FACTORIES: VALUE OF LAND AND BUILDINGS(a), AUSTRALIA**  
(£'000)

Class of industry	1956-57	1957-58	1958-59	1959-60	1960-61
I. Treatment of non-metalliferous mine and quarry products .. ..	12,686	13,714	15,175	22,325	27,330
II. Bricks, pottery, glass, etc. ..	14,498	14,986	16,580	19,616	22,249
III. Chemicals, dyes, explosives, paints, oils, grease .. ..	67,719	70,090	76,645	80,477	87,052
IV. Industrial metals, machines, conveyances .. ..	252,837	300,343	336,282	387,934	455,442
V. Precious metals, jewellery, plate .. ..	3,525	3,777	3,845	3,955	4,516
VI. Textiles and textile goods (not dress)	37,010	40,199	46,671	48,379	53,313
VII. Skins and leather (not clothing or footwear) .. ..	7,074	7,221	7,702	9,166	9,333
VIII. Clothing (except knitted) .. ..	37,203	39,855	43,203	47,762	53,776
IX. Food, drink and tobacco .. ..	118,413	129,073	138,625	149,341	160,716
X. Sawmills, joinery, boxes, etc., wood turning and carving .. ..	25,347	28,464	30,656	34,903	40,283
XI. Furniture of wood, bedding, etc. ..	11,223	12,992	14,677	16,251	17,884
XII. Paper, stationery, printing, book-binding, etc. .. ..	44,912	52,854	61,059	68,997	77,498
XIII. Rubber .. ..	9,563	11,688	12,821	13,439	15,532
XIV. Musical instruments .. ..	987	636	730	930	922
XV. Miscellaneous products .. ..	11,491	12,922	14,688	18,345	20,720
<i>Total, Classes I. to XV.</i> .. ..	<i>654,488</i>	<i>738,814</i>	<i>819,359</i>	<i>921,820</i>	<i>1,046,566</i>
XVI. Heat, light and power .. ..	105,199	110,222	128,540	142,032	147,024
<b>Grand Total .. ..</b>	<b>759,687</b>	<b>849,036</b>	<b>947,899</b>	<b>1,063,852</b>	<b>1,193,590</b>

(a) Includes estimated value of rented premises.

(ii) *In Classes of Industry in States, 1960-61.* The following table gives particulars of the various classes of industry in each State.

**FACTORIES: VALUE OF LAND AND BUILDINGS(a), 1960-61**  
(£'000)

Class of industry	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of non-metalliferous mine and quarry products .. ..	9,461	10,788	1,880	2,430	2,042	729	27,330
II. Bricks, pottery, glass, etc. ..	12,111	5,824	1,138	1,455	1,355	366	22,249
III. Chemicals, dyes, explosives, paints oils, grease .. ..	44,438	30,831	1,725	3,961	4,771	1,326	87,052
IV. Industrial metals, machines, conveyances .. ..	219,070	146,160	25,201	39,219	14,792	11,000	455,442
V. Precious metals, jewellery, plate .. ..	1,890	1,781	138	427	204	76	4,516
VI. Textiles and textile goods (not dress) .. ..	16,727	31,793	982	1,770	596	1,445	53,313
VII. Skins and leather (not clothing or footwear) .. ..	4,120	3,815	341	677	335	45	9,333
VIII. Clothing (except knitted) .. ..	22,091	23,533	2,773	2,897	1,797	685	53,776
IX. Food, drink and tobacco .. ..	49,796	56,590	25,859	12,635	9,051	6,785	160,716
X. Sawmills, joinery, boxes, etc., wood turning and carving .. ..	14,985	12,717	3,664	4,888	2,198	1,831	40,283
XI. Furniture of wood, bedding, etc. .. ..	7,622	5,675	1,887	1,481	892	327	17,884
XII. Paper, stationery, printing, bookbinding, etc. .. ..	32,492	27,126	4,761	4,788	2,092	6,239	77,498
XIII. Rubber .. ..	5,210	6,664	1,898	1,020	448	292	15,532
XIV. Musical instruments .. ..	545	248	35	65	29	..	922
XV. Miscellaneous products .. ..	9,164	9,901	423	655	450	127	20,720
<i>Total, Classes I. to XV.</i> .. ..	<i>449,722</i>	<i>373,446</i>	<i>72,705</i>	<i>78,368</i>	<i>41,052</i>	<i>31,273</i>	<i>1,046,566</i>
XVI. Heat, light and power .. ..	52,071	27,305	11,453	9,361	4,558	42,276	147,024
<b>Grand Total .. ..</b>	<b>501,793</b>	<b>400,751</b>	<b>84,158</b>	<b>87,729</b>	<b>45,610</b>	<b>73,549</b>	<b>1,193,590</b>

(a) Includes estimated value of rented premises.



(iii) *Totals in each State.* The following table shows the value of land and buildings in each State for the years 1956-57 to 1960-61.

**FACTORIES: VALUE OF LAND AND BUILDINGS(a)**

(£'000)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
1956-57 .. ..	303,981	249,716	58,654	55,343	35,520	56,473	759,687
1957-58 .. ..	350,169	277,557	63,927	61,084	36,846	59,453	849,036
1958-59 .. ..	400,273	309,833	68,995	66,278	40,690	61,830	947,899
1959-60 .. ..	440,548	353,735	76,352	77,632	43,573	72,012	1,063,852
1960-61 .. ..	501,793	400,751	84,158	87,729	45,610	73,549	1,193,590

(a) Includes estimated value of rented premises.

3. *Value of Plant and Machinery.*—(i) *Total for Australia, 1956-57 to 1960-61.* The following table shows for Australia the approximate value of plant and machinery used in factories.

**FACTORIES: VALUE OF PLANT AND MACHINERY(a), AUSTRALIA**

(£'000)

Class of industry	1956-57	1957-58	1958-59	1959-60	1960-61
I. Treatment of non-metalliferous mine and quarry products .. ..	27,351	30,623	35,099	49,658	68,426
II. Bricks, pottery, glass, etc. .. ..	13,138	13,443	14,564	16,286	20,076
III. Chemicals, dyes, explosives, paints, oils, grease .. ..	127,732	137,520	153,820	157,731	162,695
IV. Industrial metals, machines, conveyances .. ..	251,161	289,969	319,665	358,039	448,825
V. Precious metals, jewellery, plate .. ..	1,374	1,388	1,348	1,541	1,572
VI. Textiles and textile goods (not dress)	32,570	36,040	41,380	42,775	45,749
VII. Skins and leather (not clothing or footwear) .. ..	4,332	4,240	4,348	4,216	4,491
VIII. Clothing (except knitted) .. ..	15,699	15,621	16,407	17,244	18,659
IX. Food, drink and tobacco .. ..	124,406	131,708	138,940	147,262	159,600
X. Sawmills, joinery, boxes, etc., wood turning and carving .. ..	25,045	27,043	29,121	30,841	33,264
XI. Furniture of wood, bedding, etc. .. ..	3,632	3,802	4,130	4,369	4,544
XII. Paper, stationery, printing, book-binding, etc. .. ..	53,755	59,509	63,757	74,776	86,988
XIII. Rubber .. ..	8,626	10,234	10,333	12,240	12,990
XIV. Musical instruments .. ..	682	429	426	386	354
XV. Miscellaneous products .. ..	8,515	10,417	11,077	13,455	15,904
<i>Total, Classes I. to XV.</i> .. ..	<i>698,018</i>	<i>771,986</i>	<i>844,415</i>	<i>930,819</i>	<i>1,084,137</i>
XVI. Heat, light and power .. ..	219,019	240,749	263,970	289,245	307,353
<b>Grand Total .. ..</b>	<b>917,037</b>	<b>1,012,735</b>	<b>1,108,385</b>	<b>1,220,064</b>	<b>1,391,490</b>

(a) Includes estimated value of rented plant and machinery.

(ii) *Totals in each State.* The following table shows the value of plant and machinery in each State during the years 1956-57 to 1960-61.

**FACTORIES: VALUE OF PLANT AND MACHINERY(a)**

(£'000)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
1956-57 .. ..	363,310	283,868	89,904	71,847	63,272	44,836	917,037
1957-58 .. ..	415,838	302,263	104,598	79,336	63,840	46,860	1,012,735
1958-59 .. ..	459,678	337,107	112,528	84,749	66,097	48,226	1,108,385
1959-60 .. ..	506,638	377,092	120,211	98,240	64,225	53,658	1,220,064
1960-61 .. ..	607,281	417,918	132,569	113,100	64,306	56,316	1,391,490

(a) Includes estimated value of rented plant and machinery.

(iii) *Value according to Class of Industry, 1960-61.* The following table shows the value of plant and machinery used in factories in each State during 1960-61 according to class of industry.

**FACTORIES: VALUE OF PLANT AND MACHINERY(a), 1960-61**

(£'000)

Class of industry	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of non-metalliferous mine and quarry products .. ..	33,673	19,833	4,965	6,165	2,514	1,276	68,426
II. Bricks, pottery, glass, etc. .. ..	11,427	4,578	1,559	1,165	1,007	340	20,076
III. Chemicals, dyes, explosives, paints, oils, grease .. ..	75,617	54,097	2,854	8,409	19,509	2,209	162,695
IV. Industrial metals, machines, conveyances .. ..	263,499	105,562	18,358	39,489	10,020	11,897	448,825
V. Precious metals, jewellery, plate .. ..	768	531	51	156	51	15	1,572
VI. Textiles and textile goods (not dress) .. ..	15,020	24,649	1,254	1,999	456	2,371	45,749
VII. Skins and leather (not clothing or footwear) .. ..	1,858	1,651	334	416	205	27	4,491
VIII. Clothing (except knitted) .. ..	6,544	8,694	1,205	1,165	683	368	18,659
IX. Food, drink and tobacco .. ..	43,367	48,118	44,672	10,782	6,770	5,891	159,600
X. Sawmills, joinery, boxes, etc., wood turning and carving .. ..	11,021	7,714	5,426	4,231	2,416	2,456	33,264
XI. Furniture of wood, bedding, etc. .. ..	1,921	1,220	533	501	295	74	4,544
XII. Paper, stationery, printing, bookbinding, etc. .. ..	31,639	28,082	7,783	6,181	1,977	11,326	86,988
XIII. Rubber .. ..	3,737	7,392	849	629	242	141	12,990
XIV. Musical instruments .. ..	250	84	4	13	3	..	354
XV. Miscellaneous products .. ..	6,910	8,114	220	408	218	34	15,904
<i>Total, Classes I. to XV.</i> .. ..	507,251	320,319	90,067	81,709	46,366	38,425	1,084,137
XVI. Heat, light and power .. ..	100,030	97,599	42,502	31,391	17,940	17,891	307,353
<b>Grand Total .. ..</b>	<b>607,281</b>	<b>417,918</b>	<b>132,569</b>	<b>113,100</b>	<b>64,306</b>	<b>56,316</b>	<b>1,391,490</b>

(a) Includes estimated value of rented plant and machinery.

4. *Depreciation of Land and Buildings and Plant and Machinery, 1960-61.*—The following table shows the allowance made for the depreciation of land and buildings and plant and machinery used in connexion with the manufacturing industries in each State as recorded by factory proprietors at the annual census of factory production.

**FACTORIES: ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS  
AND PLANT AND MACHINERY, 1960-61**  
(£'000)

Class of industry	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of non-metalliferous mine and quarry products .. ..	3,387	1,579	495	570	238	151	6,420
II. Bricks, pottery, glass, etc. ..	1,317	670	180	155	122	34	2,478
III. Chemicals, dyes, explosives, paints, oils, grease ..	7,597	6,532	350	820	2,580	578	18,457
IV. Industrial metals, machines, conveyances ..	26,085	12,610	1,920	5,347	1,042	1,251	48,255
V. Precious metals, jewellery, plate ..	64	45	5	14	4	1	133
VI. Textiles and textile goods (not dress) ..	1,672	3,586	143	168	52	422	6,043
VII. Skins and leather (not clothing or footwear) ..	165	151	33	51	27	2	429
VIII. Clothing (except knitted) ..	722	735	125	94	65	46	1,787
IX. Food, drink and tobacco ..	4,787	5,873	4,321	1,262	859	602	17,704
X. Sawmills, joinery, boxes, etc., wood turning and carving ..	1,258	740	633	402	265	354	3,652
XI. Furniture of wood, bedding, etc. ..	229	135	60	52	31	5	512
XII. Paper, stationery, printing, bookbinding, etc. ..	3,086	3,412	717	635	258	992	9,100
XIII. Rubber ..	936	1,100	142	163	53	25	2,419
XIV. Musical instruments ..	43	8	..	1	..	..	52
XV. Miscellaneous products ..	904	1,238	23	45	23	6	2,239
<i>Total, Classes I. to XV.</i>	<i>52,252</i>	<i>38,414</i>	<i>9,147</i>	<i>9,779</i>	<i>5,619</i>	<i>4,469</i>	<i>119,680</i>
XVI. Heat, light and power ..	12,795	4,111	2,460	1,142	1,290	693	22,491
<b>Grand Total ..</b>	<b>65,047</b>	<b>42,525</b>	<b>11,607</b>	<b>10,921</b>	<b>6,909</b>	<b>5,162</b>	<b>142,171</b>

5. Land and Buildings, Plant and Machinery—Values, Additions and Replacements, Depreciation, 1956-57 to 1960-61.—The following table summarizes the recorded totals for Australia in this section and also includes particulars of additions and replacements.

**FACTORIES: VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY,  
AUSTRALIA**  
(£'000)

Year	Book values at 30th June(a)		Additions and replacements during year(a)		Depreciation allowed during year	
	Land and buildings	Plant and machinery	Land and buildings	Plant and machinery	Land and buildings	Plant and machinery
1956-57. . .	759,687	917,037	87,441	195,670	9,514	71,119
1957-58. . .	849,036	1,012,735	75,762	176,903	10,899	85,818
1958-59. . .	947,899	1,108,385	94,823	197,566	13,000	96,752
1959-60. . .	1,063,852	1,220,064	101,971	231,162	13,303	108,486
1960-61. . .	1,193,590	1,391,490	90,018	244,048	16,902	125,269

(a) Includes estimated value of rented premises, plant and machinery.

### § 10. Principal Factory Products

The factory production of certain commodities is shown in the monthly and quarterly publications of this Bureau, in the series *Manufacturing Industries*, and in the bulletin *Secondary Industries* (see NOTE at beginning of this chapter).

The following table shows the total recorded production of some of the principal articles manufactured in Australia during the years ended 30th June, 1960 to 1962. A more complete list, together with values, where available, is published in the *Secondary Industries* bulletin.

Preliminary figures for a restricted number of major commodities for the year 1962-63 are shown in the Appendix to this volume.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES: AUSTRALIA

Article	Unit of Quantity	1959-60	1960-61	1961-62 (a)
Acid—				
Nitric .. .. .	Ton	16,807	16,986	17,876
Sulphuric .. .. .		1,071,128	1,122,193	1,136,390
Aerated and carbonated waters .. .. .	'000 gals.	75,834	80,983	82,669
Asbestos cement building sheets .. .. .	'000 sq. yds.	30,707	29,697	27,045
Bacon and ham (cured weight) .. .. .	'000 lb.	72,992	72,938	(b)
Bags, leather, fibre, etc.—				
Handbags—				
Leather .. .. .	No.	792,854	777,283	(b)
Plastic .. .. .	"	1,700,176	1,809,128	(b)
Other .. .. .	"	102,612	108,117	(b)
Hessian and calico bags .. .. .	Doz.	2,810,957	2,936,354	(b)
Suitcases (c) .. .. .	No.	1,410,563	1,334,594	(b)
All other (d) .. .. .	"	1,839,705	1,901,734	(b)
Baking powder .. .. .	lb.	819,937	584,824	(b)
Bath heaters—				
Electric .. .. .	No.	12,313	14,016	14,890
Gas .. .. .	"	21,301	17,186	17,571
Solid fuel .. .. .	"	28,625	23,775	21,218
Bathing suits .. .. .	Doz.	194,114	223,487	188,922
Baths, C.I.P.E. .. .. .	No.	91,591	84,848	77,985
Batteries, wet cell type—				
Auto (S.L.I.). 6 Volts .. .. .	No.	701,011	604,419	548,899
12 Volts .. .. .	"	823,832	839,343	881,025
Radio, homelighter, fencer .. .. .	No. of 2 Volt cells	216,405	207,709	188,941
Traction .. .. .	"	36,094	35,234	36,087
Other .. .. .	"	39,519	24,894	16,144
Beer (excluding waste beer) .. .. .	'000 gals.	231,675	236,408	(e) 247,493
Biscuits .. .. .	'000 lb.	177,579	181,324	179,549
Blankets .. .. .	'000	1,934	1,903	1,691
Boots and shoes (see Footwear).				
Bran (wheaten) .. .. .	Ton (2,000 lb.)	248,137	250,372	237,695
Brassieres .. .. .	Doz.	521,146	516,691	573,754
Bread (2 lb. loaf equivalent) .. .. .	'000	757,693	761,496	(b)
Bricks, clay .. .. .	"	1,030,444	1,060,887	983,720
Brooms .. .. .	Gross	20,503	21,060	(b)
Brushes (f) .. .. .	"	105,948	108,600	(b)
Butter .. .. .	Ton	195,007	179,209	197,505
Candles .. .. .	Cwt.	9,472	9,845	(b)
Cardigans, sweaters, etc. .. .. .	Doz.	1,436,549	1,273,814	1,105,254
Casein .. .. .	'000 lb.	23,369	26,344	(b)
Cement, portland .. .. .	Ton	2,631,599	2,859,738	2,781,474
Cheese (green weight) .. .. .	"	44,758	46,804	55,249
Chutney .. .. .	'000 pints	1,690	1,817	(b)
Cigarettes .. .. .	'000 lb.	39,391	42,844	42,373
Cigars .. .. .	lb.	105,982	131,804	161,051
Cleansing and scouring powders—				
Soap based (including sand soap) .. .. .	Cwt.	65,927	62,509	60,500
Other .. .. .	"	136,054	145,043	114,480
Cloth (g)—				
Cotton (excludes towelling) .. .. .	'000 sq. yds.	44,964	44,236	44,198
Woollen and worsted .. .. .	"	30,235	26,466	25,036
Coke—				
Metallurgical .. .. .	Ton	2,376,097	2,738,505	2,722,274
Other .. .. .	"	758,668	764,626	(b)
Confectionery—				
Chocolate .. .. .	'000 lb.	73,275	79,316	78,140
Other .. .. .	"	95,536	94,674	98,847
Coppers—				
Electric .. .. .	No.	19,461	15,437	13,029
Gas .. .. .	"	20,110	15,282	13,722
Inserts (all types) .. .. .	"	37,343	24,627	(b)
Cordials and syrups .. .. .	'000 gals.	4,952	5,289	5,424
Corsets and corselets .. .. .	Doz.	193,760	217,278	235,088

(a) Subject to revision. (b) Not yet available. (c) Includes kitbags and trunks.  
 (d) Excludes canvas waterbags. (e) As reported by Department of Customs and Excise; includes waste. (f) Excludes tooth and industrial metal and bristle brushes. (g) Includes mixtures.

**QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES:  
AUSTRALIA—continued**

Article	Unit of Quantity	1959-60	1960-61	1961-62(a)
Custard powder .. .. .	'000 lb.	5,577	5,559	(b)
Cycles, assembled .. .. .	No.	69,835	64,384	54,515
Dynos—				
Alternators .. .. .	No.	611	582	(b)
Generators .. .. .	"	4,836	5,381	(b)
Electricity .. .. .	Mill. kWh	23,199	24,814	26,450
Engines—				
Diesel, other than marine .. .. .	No.	3,216	3,072	2,436
Petrol—				
Marine .. .. .	"	5,174	9,120	(b)
Other(c) .. .. .	"	291,909	183,731	196,633
Essences, flavouring—				
Culinary .. .. .	Gal.	108,158	101,445	(b)
Industrial .. .. .	"	379,774	447,779	(b)
Face powder .. .. .	Cwt.	2,974	2,180	(b)
Fans, electric (including industrial) .. .. .	No.	208,671	267,048	148,543
Fats, edible .. .. .	'000 lb.	52,075	66,710	(b)
Felt .. .. .	Sq. yd.	11,556,810	10,972,314	(b)
Fence posts .. .. .	Ton	43,397	54,820	(b)
Fibrous plaster sheets .. .. .	'000 sq. yds.	18,598	17,176	14,609
Fish, canned (including fish loaf) .. .. .	'000 lb.	8,018	8,260	11,920
Floorboards—				
Australian timber .. .. .	'000 super. ft.	151,867	144,817	(b)
Imported timber .. .. .	"	2,181	1,178	(b)
Flour, self-raising .. .. .	Cwt.	983,622	993,308	(b)
wheaten(d) .. .. .	Ton (2,000 lb.)	1,507,213	1,563,503	1,513,296
Footwear (not rubber)—				
Boots, shoes and sandals .. .. .	'000 pairs	25,629	24,307	24,999
Slippers .. .. .	"	9,752	10,308	9,832
Fruit juices, natural .. .. .	'000 gals.	5,041	4,743	(b)
Gas (town) .. .. .	Mill. cubic ft.	49,593	50,684	50,631
Gloves—				
Dress—				
Leather .. .. .	Doz. pairs	930	330	559
Other .. .. .	"	58,304	43,013	27,513
Work, all types .. .. .	"	371,011	400,690	344,674
Golf clubs .. .. .	Doz.	16,007	27,002	36,188
Handkerchiefs—				
Men's .. .. .	"	1,276,622	1,595,645	(b)
Women's .. .. .	"	1,617,728	1,685,630	(b)
Hats and caps (excluding berets)(e) .. .. .	"	561,323	646,703	(f)
Hose, rubber, garden .. .. .	'000 lin. ft.	2,494	2,179	(b)
other .. .. .	"	11,706	11,840	(b)
Plastic, garden .. .. .	"	33,743	36,408	(b)
Ice .. .. .	Ton	326,098	278,848	(b)
Ice cream .. .. .	'000 gals.	16,524	17,770	19,407
Ice cream mix powder .. .. .	Ton	743	557	644
Infants' and invalids' foods(g) .. .. .	"	15,985	16,257	16,976
Iron and steel—				
Pig iron .. .. .	'000 tons	2,655	3,002	3,379
Steel ingots .. .. .	"	3,520	3,748	4,062
Blooms and slabs .. .. .	"	3,022	3,193	3,416
Irons, electric (hand, domestic) .. .. .	No.	334,247	286,359	305,563
Jams .. .. .	'000 lb.	84,702	83,080	98,517
Jelly crystals .. .. .	"	12,551	12,679	(b)
Lacquer, clear and colours .. .. .	Gal.	1,794,192	1,366,721	1,301,396
Lard .. .. .	Cwt.	43,137	50,094	(b)
Lawn mowers—				
Petrol .. .. .	No.	246,721	199,295	200,612
Hand .. .. .	"	11,642	8,684	6,188
Leather—				
Dressed from hides, sold by measurement .. .. .	'000 sq. ft.	59,597	54,856	(b)
skins .. .. .	'000 lb.	199	140	(b)
sold by weight .. .. .	'000 sq. ft.	17,723	18,854	(b)
Harness, skirt, belting, etc. .. .. .	'000 lb.	1,121	1,131	(b)
Sole .. .. .	"	22,432	23,355	(b)
Upholstery .. .. .	'000 sq. ft.	1,276	863	(b)
Lime, crushed .. .. .	Ton	149,137	161,632	(b)
Hydrated .. .. .	"	56,846	62,317	(b)
Quick .. .. .	"	98,262	98,425	(b)

(a) Subject to revision. (b) Not yet available. (c) Excludes motor car, motor cycle, tractor and aero engines. (d) Includes wheatmeal for baking and sharps. (e) Includes hoods and capelins. (f) Not available for publication. (g) Includes malted milk and milk sugar (lactose).

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES:  
AUSTRALIA—continued

Article	Unit of Quantity	1959-60	1960-61	1961-62(a)
Linseed oil, extracted from local crushing .. from treatment of unrefined ..	'000 gals.	1,235	1,995	(b)
Lubricating oil .. .. .	"	2,317	1,767	(b)
	"	13,694	13,720	(b)
Malt, barley .. .. .	'000 bus.	8,435	9,015	10,371
Margarine—				
Table .. .. .	'000 lb.	35,810	36,117	35,604
Other .. .. .	"	58,784	61,307	64,075
Mattresses, wire .. .. .	No.	389,208	390,831	448,136
Inner spring .. .. .	"	619,165	593,779	634,157
Soft filled, etc. .. .. .	"	294,224	288,733	259,954
Meat, canned .. .. .	'000 lb.	156,594	111,440	119,499
Milk—condensed, concentrated and evaporated—				
Full cream—sweetened .. .. .	'000 lb.	75,862	66,562	62,038
Unsweetened .. .. .	"	73,990	71,725	74,980
Skim and/or buttermilk .. .. .	"	9,992	10,044	11,749
Milk powder—				
Full cream .. .. .	Ton	19,591	18,555	19,550
Skim .. .. .	"	41,204	36,952	37,328
Buttermilk and whey .. .. .	"	7,215	7,828	8,392
Mops, floor .. .. .	Gross	15,426	16,116	(b)
Motor bodies .. .. .	No.	303,020	300,136	260,037
Motor spirit (including benzol) .. .. .	'000 gals.	1,079,380	1,142,359	1,215,233
Motors, electric .. .. .	No.	1,684,833	1,862,112	1,696,502
Mustard .. .. .	Lb.	959,522	881,928	(b)
Nails .. .. .	Ton	25,858	25,138	21,993
Neckties .. .. .	Doz.	497,457	492,268	(b)
Newsprint .. .. .	Ton	88,510	88,039	89,758
Oatmeal (including rolled oats) .. .. .	Cwt.	313,441	317,365	310,098
Paint—				
Ready-mixed—liquid and enamels .. .. .	'000 gals.	12,028	11,886	12,341
Other than water, in paste form (heavy- bodied whites, etc.) .. .. .	'000 lb.	3,957	3,322	3,168
Water—				
Emulsion type .. .. .	'000 gals.	2,549	2,492	2,841
Powder (including kalsomine) .. .. .	'000 lb.	2,793	2,736	2,531
Peanut butter and paste .. .. .	"	6,406	6,976	(b)
Perambulators .. .. .	No.	153,332	145,468	134,537
Pickles .. .. .	"	8,470	9,324	(b)
Pigments, tinting colours ground in oil .. .. .	'000 pints	37,842	38,897	(b)
Zinc oxide .. .. .	Gal.	153,842	147,068	(b)
Other .. .. .	Cwt.	867,150	1,109,228	(b)
Plywood, $\frac{1}{2}$ inch basis .. .. .	'000 sq. ft.	242,099	231,536	(b)
Pollard .. .. .	Ton (2,000 lb.)	317,690	325,726	314,839
Preserves—				
Fruit preserved(d) .. .. .	'000 lb.	344,294	307,866	450,502
Pulp and puree .. .. .	Cwt.	115,418	135,546	(b)
Vegetables preserved .. .. .	'000 lb.	83,159	98,987	137,629
Pyjamas—				
Men's and boys' (suits only) .. .. .	Doz.	340,754	342,631	327,250
Women's and girls' (incl. nightdresses) .. .. .	"	541,804	552,835	552,573
Racquet frames (all types) .. .. .	"	17,463	12,673	12,862
Refrigerators, domestic .. .. .	No.	237,328	219,506	211,960
Resins, plastic and synthetic .. .. .	'000 cwt.	1,156	1,062	1,310
Rice (cleaned) .. .. .	Cwt.	1,583,301	(e) 1,744,310	(b)
Ropes and cables (excluding wire) .. .. .	"	145,658	141,396	138,972
Rugs .. .. .	'000	179	183	160
Sauce .. .. .	'000 pints	34,281	36,891	(b)
Semolina .. .. .	Ton (2,000 lb.)	8,492	11,453	11,276
Shirts (men's and boys') .. .. .	Doz.	1,838,603	1,818,528	1,644,651
Sink heaters .. .. .	No.	17,094	15,901	15,167
Soap and detergents—				
Soap, personal toilet .. .. .	Cwt.	375,806	403,511	399,996
Household .. .. .	"	727,135	711,127	682,794
Industrial (incl. wool scouring)(f) .. .. .	"	153,960	125,382	91,426
Extracts and powders, household .. .. .	"	731,054	594,035	561,505
Industrial .. .. .	"	95,095	91,638	91,553
Detergents, personal toilet .. .. .	"	12,108	13,664	17,441
Household .. .. .	"	220,437	255,704	306,922
Industrial .. .. .	"	36,057	36,068	31,193
Extracts and powders—				
Household .. .. .	"	338,580	425,599	474,600
Industrial .. .. .	"	64,523	73,804	75,741

(a) Subject to revision. (b) Not yet available.  
apple, all types. (e) Polished, unpolished or broken.

(c) All types. (d) Includes canned  
(f) Includes industrial flakes and chips.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES:  
AUSTRALIA—continued

Article	Unit of quantity	1959-60	1960-61	1961-62(a)
Socks and stockings—				
Men's and youths' .. .. .	'000 doz. pairs	1,557	1,359	1,412
Women's and maids' .. .. .	"	2,810	2,834	2,863
Infants' and babywear (including anklets)	"	1,188	1,060	1,102
Soup, canned .. .. .	'000 pints	41,138	49,071	(b)
dry-mix .. .. .	'000 lb.	5,363	6,217	(b)
Spades and shovels .. .. .	Doz.	36,156	32,163	(b)
Starch .. .. .	Cwt.	709,326	612,708	641,650
Stearine (stearic acid) .. .. .	"	82,265	72,331	83,392
Steel, structural, fabricated .. .. .	Ton	324,729	379,553	(b)
Stoves, ovens and ranges—				
Domestic cooking—				
Electric(c) .. .. .	No.	117,219	107,923	124,182
Gas .. .. .	"	99,372	92,306	88,125
Solid fuel .. .. .	"	36,855	31,722	28,843
Sugar, raw (94 net titre) .. .. .	Ton	1,287,546	1,382,611	1,390,732
Refined .. .. .	"	540,087	524,784	550,106
Sulphate of Ammonia .. .. .	"	104,861	98,988	105,754
Superphosphate(d) .. .. .	"	2,379,975	2,530,884	2,591,379
Talcum powder .. .. .	Cwt.	47,097	49,751	(b)
Tallow—				
Edible (including dripping) .. .. .	"	1,040,059	1,032,534	(b)
Inedible .. .. .	"	2,349,131	1,978,671	(b)
Television sets .. .. .	No.	435,458	315,966	294,922
Tiles, roofing—				
Cement .. .. .	'000	56,896	52,654	53,361
Terracotta .. .. .	"	56,873	55,185	50,383
Timber—				
From native logs—				
Hardwood .. .. .	'000 super. ft.	1,208,595	1,152,995	} 1,317,643
Softwood .. .. .	"	312,451	265,742	
From imported logs—				
Hardwood .. .. .	"	40,479	35,330	(b)
Softwood .. .. .	"	2,902	2,999	(b)
Toasters, electric (domestic) .. .. .	No.	211,152	235,158	217,838
Tobacco .. .. .	'000 lb.	15,262	15,259	12,982
Tomato juice .. .. .	Gal.	1,298,088	2,082,245	2,838,429
Paste .. .. .	'000 pint	6,568	14,067	(b)
Pulp .. .. .	Ton	381	489	(b)
Towels .. .. .	Doz.	862,814	695,241	760,319
Tractors .. .. .	No.	10,699	8,609	(b)
Transformers, chokes and ballasts—				
For distribution of power and light, etc. ..	"	63,314	75,730	(b)
For fluorescent lights and neon signs .. ..	"	1,732,313	2,153,124	(b)
For radio receivers, record players, etc. ..	"	334,818	310,603	(b)
For television receivers .. .. .	"	325,097	186,038	(b)
For other purposes .. .. .	"	99,266	171,865	(b)
Tubes, rubber .. .. .	"	2,965,146	3,036,035	2,731,694
Twine (all types) .. .. .	Cwt.	156,963	213,278	143,413
Tyres, pneumatic—				
Motor car and motor cycle .. .. .	No.	3,453,485	3,624,447	3,464,946
Truck and omnibus .. .. .	"	569,165	550,790	354,402
Aero and tractor .. .. .	"	204,953	192,230	181,748
Umbrellas .. .. .	"	605,857	640,643	(b)
Underwear (men's, women's, children's) ..	'000 doz.	5,170	5,420	5,572
Vacuum cleaners (domestic) .. .. .	No.	95,766	93,236	96,560
Washing machines, household, electric .. ..	"	201,873	195,541	226,745
Weatherboards—				
Australian timber .. .. .	'000 super. ft.	27,635	26,743	(b)
Imported timber .. .. .	"	1,181	930	(b)
Wheatmeal(e) .. .. .	Ton (2,000 lb.)	83,943	114,140	78,485
Wheelbarrows (metal) .. .. .	No.	93,316	81,988	(b)
Wireless and television cabinets .. .. .	"	653,058	533,022	432,364
Wireless receiving sets (incl. radiograms) ..	"	402,588	454,786	368,481
Wool scoured—				
For sale .. .. .	'000 lb.	40,703	35,036	} 162,841
For use in own works .. .. .	"	53,290	45,522	
On commission .. .. .	"	80,928	73,546	
Wool tops .. .. .	"	48,021	40,781	46,153
Yarn(f)—				
Cotton .. .. .	"	46,474	42,885	42,780
Woollen .. .. .	"	26,673	25,121	23,366
Worsted .. .. .	"	23,885	23,347	22,977
Zinc oxide (see pigments)				

(a) Subject to revision. (b) Not yet available. (c) Includes stovettes, cookers, etc.  
(d) Supplied by Superphosphate Industry Committee. (e) Excludes wheatmeal for baking included with flour. (f) Includes mixtures predominantly of the fibre mentioned.

## § 11. Individual Industries

1. **General.**—Particulars on pages 185–216, §§ 2–9 afford a general view of the magnitude of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this publication, to give a detailed account of each industry, particular industries dealt with hereunder are of special importance because of the employment which they provide for labour or capital, or for other features of special interest. Where there are only one or two establishments in a particular industry in the State or the Commonwealth, details of activities are not published, but are combined with some other factory group so that operations of individual concerns will not be disclosed.

Details of some of the principal articles produced in factories in Australia during the years 1959–60 to 1961–62 are shown in the table on the preceding pages (§ 10).

2. **Portland Cement and Cement Goods.**—The manufacture of portland cement and cement goods is an important industry included in Class I. Particulars for the three industries under this general heading are shown for 1960–61 and for a series of years in the following table.

**PORTLAND CEMENT, ASBESTOS CEMENT SHEETS, ETC., AND OTHER CEMENT GOODS**

AUSTRALIA, 1960–61

Particulars	Portland cement	Asbestos cement sheets and mouldings	Other cement goods	Total
Number of factories .. ..	15	14	548	577
Number of persons employed .. ..	3,280	2,897	6,821	12,998
Salaries and wages paid .. .. £'000	3,832	3,481	7,809	15,122
Value of power, fuel, etc., used .. .. £'000	5,072	456	440	5,968
Value of materials used .. .. £'000	7,379	6,636	26,311	40,326
Value of production .. .. £'000	12,060	6,597	16,248	34,905
Total value of output .. .. £'000	24,511	13,689	42,999	81,199
Value of land and buildings .. .. £'000	4,399	2,825	6,325	13,549
Value of plant and machinery .. .. £'000	18,715	3,895	9,073	31,683
Horse-power of engines ordinarily in use .. h.p.	99,288	18,674	27,941	145,903

AUSTRALIA

Particulars	1956–57	1957–58	1958–59	1959–60	1960–61
Number of factories .. ..	479	481	499	523	577
Number of persons employed .. ..	10,688	10,994	11,392	12,054	12,998
Salaries and wages paid .. .. £'000	10,312	10,864	11,648	13,431	15,122
Value of power, fuel, etc., used .. .. £'000	5,119	5,124	5,265	5,616	5,968
Value of materials used .. .. £'000	23,226	25,579	28,739	33,394	40,326
Value of production .. .. £'000	21,228	23,121	26,179	30,785	34,905
Total value of output .. .. £'000	49,573	53,824	60,183	69,795	81,199
Value of land and buildings .. .. £'000	6,994	7,407	8,308	10,614	13,549
Value of plant and machinery .. .. £'000	18,454	19,823	21,754	24,274	31,683
Horse-power of engines ordinarily in use .. .. h.p.	105,805	106,905	125,082	132,710	145,903

3. **Bricks, Tiles, Pottery and Earthenware.** The following table shows particulars of this industry for each State for the year 1960–61 and for Australia for a series of years.

**BRICKS, TILES, POTTERY AND EARTHENWARE**  
1960–61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	188	107	44	53	30	12	434
Number of persons employed .. ..	7,153	4,311	1,047	1,155	1,069	277	15,012
Salaries and wages paid .. .. £'000	8,202	4,800	1,067	1,260	1,038	296	16,663
Value of power, fuel, etc., used .. .. £'000	2,556	1,566	359	452	450	126	5,509
Value of materials used .. .. £'000	4,202	2,912	378	453	428	122	8,495
Value of production .. .. £'000	13,392	7,777	1,829	1,918	1,871	457	27,244
Total value of output .. .. £'000	20,150	12,255	2,566	2,823	2,749	705	41,248
Value of land and buildings .. .. £'000	6,676	3,359	689	680	916	186	12,506
Value of plant and machinery .. .. £'000	8,084	3,194	1,188	796	846	268	14,376
Horse-power of engines ordinarily in use .. .. h.p.	42,673	30,237	8,478	8,518	9,714	1,769	101,389



BRICKS, TILES, POTTERY AND EARTHENWARE—*continued*

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	453	436	434	437	434
Number of persons employed .. ..	13,553	13,887	14,276	14,980	15,012
Salaries and wages paid .. .. £'000	12,685	13,396	14,252	15,916	16,663
Value of power, fuel, etc., used .. .. £'000	4,406	4,693	4,983	5,312	5,509
Value of materials used .. .. £'000	5,259	5,990	6,665	7,856	8,495
Value of production .. .. £'000	19,161	20,924	22,934	26,384	27,244
Total value of output .. .. £'000	28,826	31,607	34,582	39,552	41,248
Value of land and buildings .. .. £'000	7,848	8,435	9,616	11,005	12,506
Value of plant and machinery .. .. £'000	8,703	9,348	10,509	11,688	14,376
Horse-power of engines ordinarily in use .. .. h.p.	84,831	93,891	93,403	97,471	101,389

4. **Industrial and Heavy Chemicals.**—The following table shows particulars of the Industrial and Heavy Chemical industry for each State during 1960-61 and for Australia for a series of years. In order to avoid the publication of confidential information, particulars relating to Industrial and Heavy Chemicals include details for the Explosives industry.

## INDUSTRIAL AND HEAVY CHEMICALS AND ACIDS (INCLUDING EXPLOSIVES)

## 1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	149	90	27	15	14	2	297
Number of persons employed .. ..	7,609	4,722	392	918	(a)	(a)	13,945
Salaries and wages paid .. .. £'000	9,778	5,923	396	1,060	(a)	(a)	17,474
Value of power, fuel, etc., used .. .. £'000	2,877	1,001	84	587	(a)	(a)	4,652
Value of materials used .. .. £'000	26,730	13,628	1,402	1,276	(a)	(a)	43,811
Value of production .. .. £'000	23,087	12,991	978	3,282	(a)	(a)	41,065
Total value of output .. .. £'000	52,694	27,620	2,464	5,145	(a)	(a)	89,528
Value of land and buildings .. .. £'000	14,741	11,200	540	1,630	(a)	(a)	28,509
Value of plant and machinery .. .. £'000	23,516	14,433	1,106	4,580	(a)	(a)	44,518
Horse-power of engines ordinarily in use .. .. h.p.	75,097	36,321	3,134	6,325	(a)	(a)	124,629

(a) Not available for publication; figures are included in the total for Australia.

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	270	281	302	287	297
Number of persons employed .. ..	14,509	15,085	15,813	14,423	13,945
Salaries and wages paid .. .. £'000	14,684	15,875	17,240	17,146	17,474
Value of power, fuel, etc., used .. .. £'000	3,845	4,208	4,616	4,874	4,652
Value of materials used .. .. £'000	38,335	43,497	46,605	46,212	43,811
Value of production .. .. £'000	34,513	35,930	42,512	43,497	41,065
Total value of output .. .. £'000	76,693	83,635	93,733	94,583	89,528
Value of land and buildings .. .. £'000	17,831	21,055	22,948	24,657	28,509
Value of plant and machinery .. .. £'000	29,190	36,157	38,137	41,326	44,518
Horse-power of engines ordinarily in use .. .. h.p.	107,787	121,393	130,928	117,311	124,629

5. **Pharmaceutical and Toilet Preparations.**—The following table shows particulars of the Pharmaceutical and Toilet Preparations industry for each State during 1960–61 and for Australia for a series of years.

## PHARMACEUTICAL AND TOILET PREPARATIONS

1960–61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	132	56	6	14	4	..	212
Number of persons employed ..	4,139	3,002	(a)	490	(a)	..	7,805
Salaries and wages paid .. £'000	3,810	3,118	(a)	394	(a)	..	7,448
Value of power, fuel, etc., used £'000	185	616	(a)	35	(a)	..	842
Value of materials used .. £'000	14,790	7,336	(a)	1,239	(a)	..	23,629
Value of production .. £'000	23,395	7,554	(a)	891	(a)	..	32,156
Total value of output .. £'000	38,370	15,506	(a)	2,165	(a)	..	56,627
Value of land and buildings .. £'000	7,107	5,828	(a)	341	(a)	..	13,431
Value of plant and machinery .. £'000	2,456	3,330	(a)	147	(a)	..	6,003
Horse-power of engines ordinarily in use .. h.p.	6,888	10,522	(a)	1,625	(a)	..	19,237

(a) Not available for publication; figures are included in the total for Australia.

## AUSTRALIA

Particulars	1956–57	1957–58	1958–59	1959–60	1960–61
Number of factories .. ..	206	212	210	216	212
Number of persons employed ..	6,446	6,834	6,976	7,791	7,805
Salaries and wages paid .. £'000	5,020	5,531	5,886	7,074	7,448
Value of power, fuel, etc., used .. £'000	312	386	754	810	842
Value of materials used .. £'000	15,292	18,226	19,575	23,311	23,629
Value of production .. £'000	17,312	21,856	23,130	28,985	32,156
Total value of output .. £'000	32,916	40,468	43,459	53,106	56,627
Value of land and buildings .. £'000	7,828	9,677	10,750	11,528	13,431
Value of plant and machinery .. £'000	2,746	3,262	4,519	5,347	6,003
Horse-power of engines ordinarily in use h.p.	16,666	14,962	16,702	18,084	19,237

6. **White Lead, Paints and Varnish.**—The following table shows particulars of this industry for each State during 1960–61 and for Australia for a series of years.

## WHITE LEAD, PAINTS AND VARNISH

1960–61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	84	48	17	15	14	4	182
Number of persons employed ..	2,865	1,443	321	416	146	17	5,208
Salaries and wages paid .. £'000	3,303	1,561	283	442	141	16	5,746
Value of power, fuel, etc., used .. £'000	250	97	12	27	6	1	393
Value of materials used .. £'000	13,363	7,072	1,748	1,914	736	91	24,924
Value of production .. £'000	8,515	3,617	1,232	1,553	419	71	15,407
Total value of output .. £'000	22,128	10,786	2,992	3,494	1,161	163	40,724
Value of land and buildings .. £'000	3,708	2,630	385	643	322	48	7,736
Value of plant and machinery .. £'000	1,826	1,693	161	371	110	16	4,177
Horse-power of engines ordinarily in use .. h.p.	13,578	9,915	1,455	1,948	852	204	27,952

## AUSTRALIA

Particulars	1956–57	1957–58	1958–59	1959–60	1960–61
Number of factories .. ..	186	184	188	181	182
Number of persons employed ..	5,815	5,749	5,532	5,475	5,208
Salaries and wages paid .. £'000	5,508	5,608	5,448	5,710	5,746
Value of power, fuel, etc., used .. £'000	400	445	419	416	393
Value of materials used .. £'000	23,916	24,619	25,448	26,892	24,924
Value of production .. £'000	13,567	13,853	13,184	15,446	15,407
Total value of output .. £'000	37,883	38,917	39,051	42,754	40,724
Value of land and buildings .. £'000	6,680	6,397	6,327	6,942	7,736
Value of plant and machinery .. £'000	3,408	3,986	3,696	4,219	4,177
Horse-power of engines ordinarily in use h.p.	26,969	25,443	25,093	25,879	27,952

7. Mineral Oil Extraction and Refining.—Particulars of factories engaged in the extraction and refining of mineral oil products are shown in the following table for each State for the year 1960-61 and for Australia for a series of years.

## MINERAL OILS

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	35	19	7	10	5	..	76
Number of persons employed .. ..	2,620	1,397	111	(a)	(a)	..	5,020
Salaries and wages paid .. .. £'000	3,720	2,054	139	(a)	(a)	..	7,062
Value of power, fuel, etc., used .. £'000	2,325	3,230	61	(a)	(a)	..	7,537
Value of materials used .. .. £'000	50,730	49,632	1,875	(a)	(a)	..	136,503
Value of production .. .. £'000	13,947	16,250	708	(a)	(a)	..	44,405
Total value of output .. .. £'000	67,002	69,112	2,644	(a)	(a)	..	188,445
Value of land and buildings .. £'000	11,296	5,356	128	(a)	(a)	..	18,493
Value of plant and machinery .. £'000	40,782	29,474	539	(a)	(a)	..	86,755
Horse-power of engines ordinarily in use .. .. h.p.	66,934	38,419	814	(a)	(a)	..	132,640

(a) Not available for publication; figures are included in the total for Australia.

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	67	69	70	70	76
Number of persons employed .. ..	4,612	4,718	4,888	4,972	5,020
Salaries and wages paid .. .. £'000	5,361	5,617	5,990	6,514	7,062
Value of power, fuel, etc., used .. £'000	7,951	7,864	7,531	7,848	7,537
Value of materials used .. .. £'000	112,056	122,798	123,526	133,417	136,503
Value of production .. .. £'000	34,786	32,661	39,149	43,724	44,405
Total value of output .. .. £'000	154,793	163,323	170,206	184,989	188,445
Value of land and buildings .. .. £'000	19,832	16,645	19,154	18,261	18,493
Value of plant and machinery .. .. £'000	71,290	73,072	85,504	84,954	86,755
Horse-power of engines ordinarily in use h.p.	91,695	90,977	106,771	108,231	132,640

8. Soap and Candle Factories.—The following table shows particulars of factories in the Soap and Candle industry in each State for 1960-61 and for Australia for a series of years.

## SOAP AND CANDLES

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	65	31	9	7	4	3	119
Number of persons employed .. ..	1,991	872	232	50	(a)	(a)	3,234
Salaries and wages paid .. .. £'000	2,195	1,020	214	35	(a)	(a)	3,538
Value of power, fuel, etc., used .. £'000	173	226	22	4	(a)	(a)	431
Value of materials used .. .. £'000	9,273	5,885	665	121	(a)	(a)	16,279
Value of production .. .. £'000	10,017	4,445	537	81	(a)	(a)	15,209
Total value of output .. .. £'000	19,463	10,556	1,224	206	(a)	(a)	31,919
Value of land and buildings .. .. £'000	1,436	1,234	161	38	(a)	(a)	2,965
Value of plant and machinery .. £'000	1,974	958	174	38	(a)	(a)	3,220
Horse-power of engines ordinarily in use .. .. h.p.	8,093	4,678	940	312	(a)	(a)	13,983

(a) Not available for publication; figures are included in the total for Australia.

SOAP AND CANDLES—*continued*

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	87	90	89	(a) 120	119
Number of persons employed .. ..	2,932	2,983	2,929	3,210	3,234
Salaries and wages paid .. .. £'000	2,704	2,830	2,822	3,220	3,538
Value of power, fuel, etc., used .. .. £'000	393	441	387	383	431
Value of materials used .. .. £'000	12,437	14,446	15,253	15,835	16,279
Value of production .. .. £'000	9,150	10,525	11,941	14,131	15,209
Total value of output .. .. £'000	21,980	25,412	27,581	30,349	31,919
Value of land and buildings .. .. £'000	1,784	1,871	2,039	2,652	2,965
Value of plant and machinery .. .. £'000	3,150	2,973	3,118	3,054	3,220
Horse-power of engines ordinarily in use .. .. h.p.	10,922	11,296	12,632	13,689	13,983

(a) The increase in the number of factories is due mainly to the reclassification of a number of factories in New South Wales.

9. Chemical Fertilizers.—The following table shows particulars of the factories engaged in the manufacture of chemical fertilizers in each State during 1960-61 and for Australia for a series of years.

## CHEMICAL FERTILIZERS

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	12	6	4	9	6	7	44
Number of persons employed .. ..	563	1,531	(a)	814	984	(a)	4,567
Salaries and wages paid .. .. £'000	758	1,940	(a)	916	1,046	(a)	5,475
Value of power, fuel, etc., used .. .. £'000	124	310	(a)	80	163	(a)	1,002
Value of materials used .. .. £'000	4,322	7,973	(a)	4,745	6,353	(a)	26,930
Value of production .. .. £'000	1,959	4,035	(a)	1,852	2,613	(a)	12,325
Total value of output .. .. £'000	6,405	12,318	(a)	6,677	9,129	(a)	40,257
Value of land and buildings .. .. £'000	1,287	989	(a)	953	1,841	(a)	6,072
Value of plant and machinery .. .. £'000	1,494	1,541	(a)	2,733	1,859	(a)	8,651
Horse-power of engines ordinarily in use .. .. h.p.	6,996	14,907	(a)	10,607	9,932	(a)	53,194

(a) Not available for publication; figures are included in the total for Australia.

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	52	49	48	49	44
Number of persons employed .. ..	5,074	5,050	4,959	4,763	4,567
Salaries and wages paid .. .. £'000	5,069	5,309	5,207	5,369	5,475
Value of power, fuel, etc., used .. .. £'000	1,160	950	995	994	1,002
Value of materials used .. .. £'000	25,479	28,862	25,756	26,348	26,930
Value of production .. .. £'000	10,158	12,175	11,440	11,520	12,325
Total value of output .. .. £'000	36,797	41,987	38,191	38,862	40,257
Value of land and buildings .. .. £'000	7,341	7,583	7,633	7,508	6,072
Value of plant and machinery .. .. £'000	11,404	10,835	10,808	10,257	8,651
Horse-power of engines ordinarily in use .. .. h.p.	59,457	58,212	57,587	58,519	53,194

10. Iron and Steel Works and Engineering.—(i) *General.* The first group included under this heading (Smelting, Converting, Refining and Rolling of Iron and Steel) covers blast furnaces, steel works and rolling mills. The second group, Foundries (Ferrous), covers those engaged in the founding of iron and steel. The third group (Plant, Equipment and Machinery including Machine Tools) covers those industries engaged in the production of

boilers, engines, machines and machinery, machine tools, structural steel fabrications, steel furniture, etc. The fourth group (Other Engineering) includes jobbing and general engineers not elsewhere included. Detailed statistics for the four groups mentioned are shown in the following tables.

(ii) *Smelting, Converting, Refining and Rolling of Iron and Steel.* In the following table, particulars are shown for each State for 1960-61 and for Australia for a series of years for the group Smelting, Converting, Refining and Rolling of Iron and Steel.

### SMEETING, CONVERTING, REFINING AND ROLLING OF IRON AND STEEL

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	16	11	..	5	2	..	34
Number of persons employed ..	31,464	1,375	..	(a)	(a)	..	33,804
Salaries and wages paid .. £'000	40,918	1,732	..	(a)	(a)	..	43,721
Value of power, fuel, etc., used .. £'000	31,237	358	..	(a)	(a)	..	33,929
Value of materials used .. £'000	166,781	2,388	..	(a)	(a)	..	174,276
Value of production .. £'000	92,563	2,683	..	(a)	(a)	..	100,618
Total value of output .. £'000	290,581	5,429	..	(a)	(a)	..	308,823
Value of land and buildings .. £'000	28,697	1,088	..	(a)	(a)	..	31,660
Value of plant and machinery .. £'000	139,740	1,095	..	(a)	(a)	..	147,676
Horse-power of engines ordinarily in use .. h.p.	729,656	10,153	..	(a)	(a)	..	757,451

### AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories ..	34	35	34	35	34
Number of persons employed ..	26,078	28,526	29,982	31,825	33,804
Salaries and wages paid .. £'000	28,636	31,469	34,220	38,793	45,721
Value of power, fuel, etc., used .. £'000	20,538	22,150	23,539	30,202	33,929
Value of materials used .. £'000	136,483	137,674	153,563	162,677	174,276
Value of production .. £'000	66,385	70,379	78,154	86,256	100,618
Total value of output .. £'000	223,406	230,203	255,256	279,135	308,823
Value of land and buildings .. £'000	9,054	9,953	11,400	14,417	31,660
Value of plant and machinery .. £'000	61,608	71,048	82,451	95,110	147,676
Horse-power of engines ordinarily in use h.p.	448,541	536,530	633,180	690,291	757,451

(a) Not available for publication; figures are included in the total for Australia.

Particulars of the production of pig-iron and steel will be found on page 218 and in the chapter *Mineral Industry*.

(iii) *Foundries (Ferrous).* Particulars covering those industries classified as founding of iron and steel are shown for each State for 1960-61 and for Australia for a series of years in the following table.

### FOUNDRIES—FERROUS

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	79	99	26	24	17	..	245
Number of persons employed ..	2,893	2,719	1,021	613	551	..	7,797
Salaries and wages paid .. £'000	3,323	3,229	986	687	551	..	8,776
Value of power, fuel, etc., used .. £'000	372	455	94	72	121	..	1,114
Value of materials used .. £'000	2,611	3,240	1,381	849	573	..	8,654
Value of production .. £'000	4,708	4,596	1,580	1,049	823	..	12,756
Total value of output .. £'000	7,691	8,291	3,055	1,970	1,517	..	22,524
Value of land and buildings .. £'000	1,681	2,233	584	309	321	..	5,128
Value of plant and machinery .. £'000	1,188	1,618	426	247	248	..	3,727
Horse-power of engines ordinarily in use .. h.p.	11,061	10,772	3,745	2,711	3,182	..	51,471

FOUNDRIES—FERROUS—*continued*

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	368	373	346	312	245
Number of persons employed .. ..	7,633	7,801	7,376	7,853	7,797
Salaries and wages paid .. £'000	7,060	7,548	7,293	8,504	8,776
Value of power, fuel, etc., used .. £'000	975	997	955	1,121	1,114
Value of materials used .. £'000	6,221	6,664	6,687	7,905	8,654
Value of production .. £'000	10,235	11,237	10,615	12,325	12,756
Total value of output .. £'000	17,431	18,898	18,257	21,351	22,524
Value of land and buildings .. £'000	3,899	4,244	3,912	4,866	5,128
Value of plant and machinery .. £'000	3,545	3,615	2,963	3,791	3,727
Horse-power of engines ordinarily in use h.p.	32,835	33,042	31,612	32,455	31,471

(iv) *Plant, Equipment and Machinery (including Machine Tools).* The next table shows particulars for this group for each State during 1960-61 and for Australia for a series of years.

## PLANT, EQUIPMENT AND MACHINERY (INCLUDING MACHINE TOOLS)

## 1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	1,227	742	211	233	153	21	2,587
Number of persons employed .. ..	30,601	27,359	6,665	9,461	3,195	452	77,733
Salaries and wages paid .. £'000	35,768	31,190	6,345	9,717	3,188	461	86,669
Value of power, fuel, etc., used .. £'000	1,394	1,378	284	581	137	15	3,789
Value of materials used .. £'000	65,666	52,510	10,301	18,030	5,296	526	152,329
Value of production .. £'000	61,091	51,881	10,104	15,379	4,758	712	143,925
Total value of output .. £'000	128,151	105,769	20,689	33,990	10,191	1,253	300,043
Value of land and buildings .. £'000	28,284	25,557	3,662	5,769	2,520	545	66,337
Value of plant and machinery .. £'000	17,191	16,511	2,839	4,465	1,703	413	43,122
Horse-power of engines ordinarily in use .. .. h.p.	107,078	98,498	22,226	35,495	13,604	1,237	278,138

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	2,212	2,240	2,345	2,518	2,587
Number of persons employed .. ..	69,476	69,540	70,905	76,096	77,733
Salaries and wages paid .. £'000	65,272	67,000	70,371	81,885	86,669
Value of power, fuel, etc., used .. £'000	2,775	2,964	3,161	3,574	3,789
Value of materials used .. £'000	99,172	114,716	122,408	144,405	152,329
Value of production .. £'000	106,922	110,365	115,472	138,402	143,925
Total value of output .. £'000	208,869	228,045	241,041	286,381	300,043
Value of land and buildings .. £'000	39,692	45,592	49,927	56,116	66,337
Value of plant and machinery .. £'000	29,112	32,805	36,400	39,407	43,122
Horse-power of engines ordinarily in use h.p.	222,937	236,230	250,580	267,497	278,138

(v) *Other Engineering.* Details covering jobbing and general engineering works not elsewhere included are shown for each State for 1960-61 and for Australia for a series of years in the following table.

## OTHER ENGINEERING

## 1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	849	961	159	209	154	107	2,439
Number of persons employed .. ..	7,927	11,889	1,542	3,911	891	1,837	27,997
Salaries and wages paid .. £'000	8,685	12,976	1,378	4,111	746	898	28,794
Value of power, fuel, etc., used .. £'000	339	456	42	109	35	67	1,048
Value of materials used .. £'000	9,933	15,052	1,429	4,982	1,058	2,687	35,141
Value of production .. £'000	14,327	20,600	2,076	5,931	1,373	3,062	47,369
Total value of output .. £'000	24,599	36,108	3,547	11,022	2,466	5,816	83,558
Value of land and buildings .. £'000	7,069	11,250	844	2,781	654	1,417	24,015
Value of plant and machinery .. £'000	4,468	7,003	594	3,430	328	618	16,441
Horse-power of engines ordinarily in use .. .. h.p.	29,281	36,415	4,925	12,283	3,945	6,160	93,019

## OTHER ENGINEERING—continued

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	2,166	2,223	2,220	2,318	2,439
Number of persons employed .. ..	23,148	23,370	23,467	25,780	27,997
Salaries and wages paid .. .. £'000	20,037	20,768	21,682	25,858	28,794
Value of power, fuel, etc., used .. .. £'000	674	699	806	1,018	1,048
Value of materials used .. .. £'000	22,320	23,780	26,059	31,110	35,141
Value of production .. .. £'000	31,568	34,274	34,829	42,264	47,369
Total value of output .. .. £'000	54,562	58,753	61,694	74,392	83,558
Value of land and buildings .. .. £'000	13,801	15,485	16,655	19,233	24,015
Value of plant and machinery .. .. £'000	9,440	10,746	12,201	13,782	16,441
Horse-power of engines ordinarily in use h.p.	72,254	76,500	76,109	89,374	93,019

11. **Extracting and Refining of Non-ferrous Metals; Alloys.**—The following table shows particulars of establishments engaged in metal extraction and ore reduction including secondary recovery of metals, but excluding blast furnaces engaged in production of pig iron from iron ore, for each State during 1960-61 and for Australia for a series of years.

## EXTRACTING AND REFINING OF NON-FERROUS METALS: ALLOYS

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust. (a)	Tas.	Aust.
Number of factories .. ..	29	25	5	3	4	3	69
Number of persons employed .. ..	1,251	362	1,130	(b)	14	(b)	7,545
Salaries and wages paid .. .. £'000	1,662	456	1,334	(b)	14	(b)	9,842
Value of power, fuel, etc., used .. .. £'000	403	77	1,127	(b)	4	(b)	4,703
Value of materials used .. .. £'000	14,651	4,518	29,765	(b)	49	(b)	74,673
Value of production .. .. £'000	3,066	957	3,705	(b)	39	(b)	21,984
Total value of output .. .. £'000	18,120	5,552	34,597	(b)	92	(b)	101,360
Value of land and buildings .. .. £'000	1,104	541	3,320	(b)	19	(b)	10,724
Value of plant and machinery .. .. £'000	2,603	401	6,277	(b)	9	(b)	23,918
Horse-power of engines ordinarily in use .. .. h.p.	10,106	1,509	16,820	(b)	264	(b)	90,216

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	58	63	68	71	69
Number of persons employed .. ..	7,212	7,254	7,269	7,438	7,545
Salaries and wages paid .. .. £'000	8,720	8,667	8,880	9,535	9,842
Value of power, fuel, etc., used .. .. £'000	4,282	4,413	4,724	4,833	4,703
Value of materials used .. .. £'000	68,426	58,120	61,060	64,376	74,673
Value of production .. .. £'000	19,773	18,138	18,129	20,502	21,984
Total value of output .. .. £'000	92,481	80,671	83,913	89,711	101,360
Value of land and buildings .. .. £'000	6,566	6,907	7,326	10,105	10,724
Value of plant and machinery .. .. £'000	14,485	15,262	15,764	21,495	23,918
Horse-power of engines ordinarily in use h.p.	76,212	76,070	76,680	86,776	90,216

(a) In Western Australia the majority of the plants are worked at the mines and are therefore not included.

(b) Not available for publication; figures are included in the total for Australia.

12. **Electrical Machinery, Cables and Apparatus.**—The following table shows particulars of this industry for each State during 1960-61 and for Australia for a series of years.

## ELECTRICAL MACHINERY, CABLES AND APPARATUS

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	650	385	69	123	94	18	1,339
Number of persons employed .. ..	33,257	15,100	2,067	2,288	1,053	307	54,072
Salaries and wages paid .. .. £'000	35,880	16,011	1,986	2,098	915	289	57,179
Value of power, fuel, etc., used .. .. £'000	1,788	870	66	54	27	16	2,821
Value of materials used .. .. £'000	69,929	32,132	4,098	3,003	1,070	448	110,680
Value of production .. .. £'000	59,481	26,021	3,212	3,105	1,488	590	93,897
Total value of output .. .. £'000	131,198	59,023	7,376	6,162	2,585	1,054	207,398
Value of land and buildings .. .. £'000	24,572	13,907	1,481	1,784	804	227	42,775
Value of plant and machinery .. .. £'000	15,909	8,815	1,056	782	181	87	26,830
Horse-power of engines ordinarily in use .. .. h.p.	71,902	37,871	7,488	3,182	1,804	362	122,609

## ELECTRICAL MACHINERY, CABLES AND APPARATUS—continued

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	1,153	1,152	1,213	1,360	1,339
Number of persons employed .. ..	44,594	46,394	50,069	53,089	54,072
Salaries and wages paid .. £'000	38,780	41,892	46,979	54,011	57,179
Value of power, fuel, etc. used .. £'000	1,964	2,155	2,493	2,685	2,821
Value of materials used .. £'000	76,256	84,212	94,964	108,712	110,680
Value of production .. .. £'000	63,198	69,589	76,808	90,199	93,897
Total value of output .. .. £'000	141,418	155,956	174,265	201,596	207,398
Value of land and buildings .. £'000	25,306	28,316	32,958	38,679	42,775
Value of plant and machinery .. £'000	16,409	20,046	23,627	27,602	26,830
Horse-power of engines ordinarily in use h.p.	91,991	98,679	111,980	118,299	122,609

13. **Railway and Tramway Workshops (Government and Local Authority).**—The railway and tramway workshops, which form an important part of Class IV., are owned chiefly by State governments and local authorities. *Workshops (fourteen in 1960-61) controlled by non-public bodies are not included in the figures below.*

## TRAMCARS AND RAILWAY ROLLING STOCK(a)

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	35	22	30	13	20	6	126
Number of persons employed .. ..	12,527	6,989	7,756	3,860	3,412	779	35,323
Salaries and wages paid .. £'000	12,909	7,011	7,259	3,758	3,128	730	34,795
Value of power, fuel, etc., used .. £'000	437	220	167	130	119	24	1,097
Value of materials used .. .. £'000	5,060	6,251	3,146	3,077	1,587	269	19,390
Value of production .. .. £'000	15,647	9,477	8,465	4,654	3,714	932	42,889
Total value of output .. .. £'000	21,144	15,948	11,778	7,861	5,420	1,225	63,376
Value of land and buildings .. £'000	6,415	2,351	1,779	1,737	654	745	13,681
Value of plant and machinery .. £'000	11,001	1,465	1,511	2,351	987	342	17,657
Horse-power of engines ordinarily in use .. h.p.	41,692	24,369	20,249	14,995	11,497	3,261	116,063

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	125	124	139	129	126
Number of persons employed .. ..	38,780	38,079	37,993	36,746	35,323
Salaries and wages paid .. .. £'000	33,670	32,946	33,599	34,208	34,795
Value of power, fuel, etc., used .. £'000	1,090	1,083	1,080	1,112	1,097
Value of materials used .. .. £'000	21,565	20,050	19,563	19,414	19,390
Value of production .. .. £'000	41,172	40,685	41,557	41,473	42,889
Total value of output .. .. £'000	63,827	61,818	62,200	61,999	63,376
Value of land and buildings .. .. £'000	11,494	11,775	12,374	12,761	13,681
Value of plant and machinery .. .. £'000	14,673	15,234	16,547	17,174	17,657
Horse-power of engines ordinarily in use h.p.	122,852	114,805	115,162	116,443	116,063

(a) Government and local authority only.

14. **Motor Vehicles.**—The industries catering for the motor trade are included in Class IV., Industrial Metals, Machines and Conveyances. In the following table, a summary is given of the principal statistics for 1960-61 for each branch of industry associated with the motor trade of Australia.

MOTOR VEHICLES: CONSTRUCTION, ASSEMBLY, REPAIRS, ETC., AUSTRALIA  
1960-61

Particulars	Construction and assembly	Repairs	Motor bodies (a)	Motor accessories	Total
Number of factories .. ..	51	10,355	2,068	283	12,757
Number of persons employed .. ..	21,535	62,055	29,210	13,854	126,654
Salaries and wages paid .. .. £'000	25,656	51,990	31,034	14,927	123,607
Value of power, fuel, etc., used .. £'000	2,001	1,658	1,246	974	5,879
Value of materials used .. .. £'000	47,505	56,326	65,699	21,640	191,170
Value of production .. .. £'000	42,967	80,291	45,708	26,051	195,017
Total value of output .. .. £'000	92,473	138,275	112,653	48,665	392,066
Value of land and buildings .. .. £'000	20,597	74,084	21,940	11,384	128,005
Value of plant and machinery .. .. £'000	13,195	17,132	14,394	20,014	64,733
Horse-power of engines ordinarily in use h.p.	76,977	74,076	70,257	44,956	266,266

(a) Includes motor body repairing, panel beating, duco spraying, etc.



In the next table, similar details are shown on a State basis for 1960-61 and for Australia for a series of years for these industries combined.

### MOTOR VEHICLES: CONSTRUCTION, ASSEMBLY, REPAIRS, ETC.

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	5,315	3,044	1,499	1,367	1,154	378	12,757
Number of persons employed .. ..	41,245	45,421	10,823	19,386	7,334	2,445	126,654
Salaries and wages paid .. £'000	38,975	47,541	8,472	20,498	6,063	2,058	123,607
Value of power, fuel, etc., used .. £'000	1,708	2,708	268	891	240	64	5,879
Value of materials used .. .. £'000	76,427	53,544	9,833	39,614	9,354	2,398	191,170
Value of production .. .. £'000	62,789	75,104	15,382	28,105	10,214	3,423	195,017
Total value of output .. .. £'000	140,924	131,356	25,483	68,610	19,808	5,885	392,066
Value of land and buildings .. £'000	48,002	48,500	7,788	14,804	6,337	2,574	128,005
Value of plant and machinery .. £'000	18,062	30,979	2,234	10,787	2,020	653	64,735
Horse-power of engines ordinarily in use .. .. h.p.	77,361	101,646	14,241	54,569	15,302	3,147	266,266

### AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	10,334	10,909	11,354	12,089	12,757
Number of persons employed .. ..	107,480	110,380	113,200	120,231	126,654
Salaries and wages paid .. .. £'000	86,282	91,886	97,078	113,849	123,607
Value of power, fuel, etc., used .. £'000	3,747	4,250	4,603	5,123	5,879
Value of materials used .. .. £'000	120,297	143,724	149,577	175,927	191,170
Value of production .. .. £'000	132,018	148,383	161,569	182,260	195,017
Total value of output .. .. £'000	256,062	296,357	315,749	363,310	392,066
Value of land and buildings .. .. £'000	78,817	89,561	99,734	113,762	128,005
Value of plant and machinery .. .. £'000	40,890	46,630	47,742	50,308	64,735
Horse-power of engines ordinarily in use h.p.	206,792	211,264	223,901	228,410	266,266

15. **Agricultural Machines and Implements.**—The following table shows details of establishments classified as agricultural implement works in each State for 1960-61 and for Australia for a series of years.

### AGRICULTURAL MACHINES AND IMPLEMENTS

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	167	117	86	41	39	..	450
Number of persons employed .. ..	1,829	5,749	1,699	1,659	371	..	11,307
Salaries and wages paid .. .. £'000	1,803	6,106	1,497	1,692	338	..	11,436
Value of power, fuel, etc., used .. £'000	74	452	90	110	11	..	737
Value of materials used .. .. £'000	2,504	9,818	1,916	2,564	522	..	17,324
Value of production .. .. £'000	2,804	8,606	2,285	2,646	529	..	16,870
Total value of output .. .. £'000	5,382	18,876	4,291	5,320	1,062	..	34,931
Value of land and buildings .. £'000	2,200	3,554	1,180	885	400	..	8,219
Value of plant and machinery .. £'000	618	3,057	768	670	132	..	5,245
Horse-power of engines ordinarily in use .. .. h.p.	5,403	19,891	6,895	5,914	1,545	..	39,648

### AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	348	370	358	404	450
Number of persons employed .. ..	10,387	10,449	10,727	11,359	11,307
Salaries and wages paid .. .. £'000	9,107	9,534	10,178	11,316	11,436
Value of power, fuel, etc., used .. £'000	581	638	674	722	737
Value of materials used .. .. £'000	11,084	13,438	14,162	17,607	17,324
Value of production .. .. £'000	14,038	15,599	15,426	16,847	16,870
Total value of output .. .. £'000	25,703	29,675	30,262	35,176	34,931
Value of land and buildings .. .. £'000	6,153	6,620	6,666	6,857	8,219
Value of plant and machinery .. .. £'000	4,800	4,537	4,418	4,725	5,245
Horse-power of engines ordinarily in use h.p.	40,254	39,652	39,201	42,922	39,648

16. **Wireless and Amplifying Apparatus.**—This industry is confined mainly to New South Wales, Victoria and South Australia.

#### WIRELESS AND AMPLIFYING APPARATUS: AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	205	211	257	289	301
Number of persons employed .. ..	12,074	16,002	16,482	19,559	17,273
Salaries and wages paid .. .. £'000	9,145	13,264	14,264	17,644	17,092
Value of power, fuel, etc., used .. .. £'000	312	479	550	621	648
Value of materials used .. .. £'000	16,801	36,756	39,255	50,129	40,805
Value of production .. .. £'000	11,767	20,725	23,431	30,304	24,958
Total value of output .. .. £'000	28,880	57,960	63,236	81,054	66,411
Value of land and buildings .. .. £'000	4,752	6,374	7,897	8,941	10,479
Value of plant and machinery .. .. £'000	3,101	4,250	5,018	5,744	6,468
Horse-power of engines ordinarily in use h.p.	11,658	13,506	12,952	14,302	14,856

17. **Cotton.**—(i) *General.* Cotton has been grown in Australia since 1860, but never on a very large scale, and production has shown marked fluctuations over the long term. The growing of cotton, which is confined mainly to Queensland, is referred to in some detail in the chapter Rural Industry. The ginning and marketing of cotton is controlled by the Queensland Cotton Board which operates ginneries and processes by-products. The production of raw cotton is insufficient for local factory requirements and is supplemented by imports from overseas, chiefly (in 1961-62) from the United States of America, Mexico, Columbia and Peru.

(ii) *Spinning and Weaving.* The number of establishments engaged in cotton spinning and weaving in Australia and other particulars of the industry are shown in the following table for the years 1956-57 to 1960-61.

#### COTTON SPINNING AND WEAVING: AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	91	97	97	92	88
Number of persons employed .. ..	9,754	9,879	9,770	9,780	9,121
Salaries and wages paid .. .. £'000	7,799	8,268	8,116	8,853	8,122
Value of power, fuel, etc., used .. .. £'000	890	958	988	997	958
Value of materials used .. .. £'000	19,485	24,025	19,403	20,631	18,336
Value of production .. .. £'000	14,202	15,622	14,751	16,224	15,169
Total value of output .. .. £'000	34,577	40,605	35,142	37,852	34,463
Value of land and buildings .. .. £'000	6,478	7,179	10,625	9,706	10,392
Value of plant and machinery .. .. £'000	5,312	6,702	9,949	9,414	10,105
Horse-power of engines ordinarily in use h.p.	34,568	35,880	38,779	37,240	36,193

18. **Wool Carding, Spinning and Weaving.**—Details for each State for 1960-61 and for Australia for a series of years are shown in the following table.

#### WOOL CARDING, SPINNING AND WEAVING

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	39	82	4	3	3	4	135
Number of persons employed .. ..	5,898	10,985	994	(a)	(a)	2,417	21,400
Salaries and wages paid .. .. £'000	4,851	9,064	659	(a)	(a)	1,899	17,372
Value of power, fuel, etc., used .. .. £'000	397	777	50	(a)	(a)	176	1,484
Value of materials used .. .. £'000	9,519	22,053	1,669	(a)	(a)	4,443	40,629
Value of production .. .. £'000	8,348	13,565	653	(a)	(a)	3,959	28,119
Total value of output .. .. £'000	18,264	36,395	2,372	(a)	(a)	8,578	70,232
Value of land and buildings .. .. £'000	2,941	6,628	277	(a)	(a)	614	10,904
Value of plant and machinery .. .. £'000	3,855	6,496	315	(a)	(a)	1,305	12,552
Horse-power of engines ordinarily in use .. .. h.p.	15,847	39,724	3,750	(a)	(a)	6,556	69,428

(a) Not available for publication; figures are included in the total for Australia.

WOOL CARDING, SPINNING AND WEAVING—*continued*

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	143	146	141	134	135
Number of persons employed .. ..	23,217	22,386	20,809	22,433	21,400
Salaries and wages paid .. .. £'000	16,340	16,380	15,714	18,052	17,372
Value of power, fuel, etc., used .. .. £'000	1,479	1,463	1,445	1,363	1,484
Value of materials used .. .. £'000	49,303	46,012	37,252	47,440	40,629
Value of production .. .. £'000	27,649	25,737	26,458	29,131	28,119
Total value of output .. .. £'000	78,431	73,212	65,155	78,134	70,232
Value of land and buildings .. .. £'000	9,019	9,364	10,519	10,625	10,904
Value of plant and machinery .. .. £'000	10,855	11,641	12,082	12,599	12,552
Horse-power of engines ordinarily in use h.p.	99,385	70,433	72,301	70,811	69,428

19. Hosiery and Other Knitted Goods.—Details for each State for 1960-61 and for Australia for a series of years are shown in the following table.

## HOSIERY AND OTHER KNITTED GOODS

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	188	476	4	9	6	4	687
Number of persons employed .. ..	6,562	17,238	551	155	145	90	24,741
Salaries and wages paid .. .. £'000	5,211	13,271	379	80	96	64	19,101
Value of power, fuel, etc., used .. .. £'000	209	581	11	3	3	3	810
Value of materials used .. .. £'000	11,965	28,713	1,072	208	191	79	42,228
Value of production .. .. £'000	10,106	24,484	528	146	153	104	35,521
Total value of output .. .. £'000	22,280	53,778	1,611	357	347	186	78,559
Value of land and buildings .. .. £'000	3,389	10,877	195	43	48	54	14,606
Value of plant and machinery .. .. £'000	2,409	7,250	194	44	42	28	9,967
Horse-power of engines ordinarily in use .. .. h.p.	5,531	16,185	551	187	179	105	22,738

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	665	657	663	701	687
Number of persons employed .. ..	23,492	22,939	22,851	24,414	24,741
Salaries and wages paid .. .. £'000	16,052	16,124	16,421	18,791	19,101
Value of power, fuel, etc., used .. .. £'000	744	770	787	798	810
Value of materials used .. .. £'000	34,769	38,002	34,701	41,479	42,228
Value of production .. .. £'000	29,035	28,615	31,325	34,629	35,521
Total value of output .. .. £'000	64,548	67,387	66,813	76,906	78,559
Value of land and buildings .. .. £'000	9,939	10,910	12,144	12,962	14,606
Value of plant and machinery .. .. £'000	8,143	8,539	9,353	9,171	9,967
Horse-power of engines ordinarily in use h.p.	22,911	21,858	23,290	22,019	22,738

20. Rope and Cordage.—Particulars of factories manufacturing rope and cordage are shown in the following table for Australia for each year, 1956-57 to 1960-61. Most of the production takes place in New South Wales and Victoria, although there were factories in 1960-61 in all States except Tasmania.

## ROPE AND CORDAGE: AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	27	28	29	28	27
Number of persons employed .. ..	2,199	2,192	2,239	2,387	2,335
Salaries and wages paid .. .. £'000	1,831	1,830	1,995	2,285	2,272
Value of power, fuel, etc., used .. .. £'000	123	120	133	158	171
Value of materials used .. .. £'000	3,537	3,177	3,790	4,167	5,121
Value of production .. .. £'000	3,362	3,256	4,065	4,407	4,257
Total value of output .. .. £'000	7,022	6,553	7,988	8,732	9,549
Value of land and buildings .. .. £'000	2,308	2,405	2,447	2,625	2,629
Value of plant and machinery .. .. £'000	1,205	1,369	1,441	1,558	1,694
Horse-power of engines ordinarily in use h.p.	13,669	13,530	13,935	14,057	15,015

21. Tanning, Currying and Leather Dressing.—The following table shows particulars of the tanning industry in each State for the year 1960-61 and for Australia for a series of years.

## TANNING, CURRYING AND LEATHER DRESSING

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	56	31	12	8	4	1	112
Number of persons employed ..	1,761	1,567	563	228	(a)	(a)	4,245
Salaries and wages paid .. £'000	2,015	1,643	542	251	(a)	(a)	4,575
Value of power, fuel, etc., used £'000	203	193	50	26	(a)	(a)	484
Value of materials used .. £'000	6,434	4,696	2,157	772	(a)	(a)	14,421
Value of production .. £'000	2,928	2,353	971	292	(a)	(a)	6,748
Total value of output .. £'000	9,565	7,242	3,178	1,090	(a)	(a)	21,653
Value of land and buildings .. £'000	1,548	1,602	87	110	(a)	(a)	3,418
Value of plant and machinery .. £'000	982	830	183	165	(a)	(a)	2,230
Horse-power of engines ordinarily in use .. .. h.p.	12,744	11,378	4,180	2,022	(a)	(a)	31,516

(a) Not available for publication; figures are included in the total for Australia.

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	133	124	123	118	112
Number of persons employed ..	4,746	4,708	4,617	4,435	4,245
Salaries and wages paid .. £'000	4,383	4,413	4,510	4,612	4,575
Value of power, fuel, etc., used .. £'000	446	470	490	484	484
Value of materials used .. £'000	11,738	11,938	12,635	15,766	14,421
Value of production .. £'000	5,736	6,214	6,919	6,967	6,748
Total value of output .. £'000	17,920	18,622	20,044	23,217	21,653
Value of land and buildings .. £'000	2,314	2,341	2,535	3,399	3,418
Value of plant and machinery .. £'000	2,264	2,154	2,223	2,152	2,230
Horse-power of engines ordinarily in use h.p.	30,799	32,378	30,749	33,516	31,516

22. Leather Goods (including Saddlery and Belting).—Particulars of the leather goods industry in each State for the year 1960-61 and for Australia for a series of years are shown in the following table.

## LEATHER GOODS (INCLUDING SADDLERY AND BELTING)

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	208	143	25	20	17	5	418
Number of persons employed ..	2,449	1,475	337	223	157	17	4,658
Salaries and wages paid .. £'000	1,885	1,064	218	147	95	10	3,419
Value of power, fuel, etc., used £'000	32	26	3	3	2	(a)	66
Value of materials used .. £'000	3,552	2,158	331	273	179	11	6,504
Value of production .. £'000	3,071	1,994	377	241	174	21	5,878
Total value of output .. £'000	6,655	4,178	711	517	355	32	12,448
Value of land and buildings .. £'000	1,570	1,134	133	109	127	11	3,084
Value of plant and machinery .. £'000	360	378	40	37	18	1	834
Horse-power of engines ordinarily in use .. .. h.p.	1,409	1,679	172	220	180	18	3,678

(a) Under £500.

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	455	450	430	433	418
Number of persons employed ..	4,645	4,722	4,727	4,873	4,658
Salaries and wages paid .. £'000	2,909	3,051	3,140	3,471	3,419
Value of power, fuel, etc., used .. £'000	55	55	59	66	66
Value of materials used .. £'000	4,903	5,212	5,670	6,607	6,504
Value of production .. £'000	4,847	5,099	5,280	6,063	5,878
Total value of output .. £'000	9,805	10,366	11,009	12,736	12,448
Value of land and buildings .. £'000	2,109	2,178	2,351	2,821	3,084
Value of plant and machinery .. £'000	562	572	607	646	834
Horse-power of engines ordinarily in use h.p.	2,886	3,091	2,738	3,769	3,678

23. Tailoring and Ready-made Clothing.—Statistics showing the distribution of this industry among the States in 1960–61 and for Australia for a series of years are shown in the following table.

## TAILORING AND READY-MADE CLOTHING

1960–61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	969	569	107	96	114	16	1,871
Number of persons employed ..	18,949	10,788	2,037	1,303	645	168	33,890
Salaries and wages paid .. £'000	13,180	8,045	1,096	789	334	98	23,542
Value of power, fuel, etc., used .. £'000	264	171	25	23	10	2	495
Value of materials used .. £'000	25,952	13,864	1,387	875	526	70	42,674
Value of production .. £'000	20,908	12,611	1,634	1,087	593	137	36,970
Total value of output .. £'000	47,124	26,646	3,046	1,985	1,129	209	80,139
Value of land and buildings .. £'000	7,972	5,543	595	772	403	98	15,383
Value of plant and machinery .. £'000	1,837	1,266	161	106	64	12	3,446
Horse-power of engines ordinarily in use .. .. h.p.	6,393	3,994	664	497	228	44	11,820

## AUSTRALIA

Particulars	1956–57	1957–58	1958–59	1959–60	1960–61
Number of factories .. ..	1,944	1,914	1,841	1,860	1,871
Number of persons employed ..	31,920	31,457	31,406	33,170	33,890
Salaries and wages paid .. £'000	18,760	19,337	19,533	22,133	23,542
Value of power, fuel, etc., used .. £'000	416	422	440	467	495
Value of materials used .. £'000	35,883	36,680	36,253	40,791	42,674
Value of production .. £'000	29,811	31,117	31,371	35,166	36,970
Total value of output .. £'000	66,110	68,219	68,064	76,424	80,139
Value of land and buildings .. £'000	10,137	11,014	11,948	13,287	15,383
Value of plant and machinery .. £'000	2,861	2,913	3,063	3,147	3,446
Horse-power of engines ordinarily in use .. h.p.	9,133	9,671	10,143	10,899	11,820

24. Dressmaking and Millinery Establishments.—Particulars of dressmaking and millinery establishments in the States for 1960–61 and in Australia for the years 1956–57 to 1960–61 are shown in the following table.

## DRESSMAKING AND MILLINERY

1960–61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	382	580	72	88	67	5	1,194
Number of persons employed ..	2,476	8,980	1,512	718	675	42	14,403
Salaries and wages paid .. £'000	1,505	6,143	818	364	337	24	9,191
Value of power, fuel, etc., used .. £'000	36	121	15	9	6	3	190
Value of materials used .. £'000	2,169	7,543	1,057	443	407	47	11,666
Value of production .. £'000	2,843	9,865	1,285	535	493	42	15,063
Total value of output .. £'000	5,048	17,529	2,357	987	906	92	26,919
Value of land and buildings .. £'000	1,742	5,338	503	398	284	12	8,277
Value of plant and machinery .. £'000	177	742	74	39	46	7	1,085
Horse-power of engines ordinarily in use .. .. h.p.	686	2,776	390	290	241	15	4,398

## AUSTRALIA

Particulars	1956–57	1957–58	1958–59	1959–60	1960–61
Number of factories .. ..	1,311	1,295	1,249	1,228	1,194
Number of persons employed ..	16,265	15,668	15,048	15,021	14,403
Salaries and wages paid .. £'000	8,783	8,859	8,599	9,205	9,191
Value of power, fuel, etc., used .. £'000	185	184	184	190	190
Value of materials used .. £'000	12,447	11,999	11,272	11,758	11,666
Value of production .. £'000	14,244	14,220	13,766	14,764	15,063
Total value of output .. £'000	26,876	26,403	25,222	26,712	26,919
Value of land and buildings .. £'000	5,966	6,693	6,937	7,623	8,277
Value of plant and machinery .. £'000	1,152	1,246	1,171	1,114	1,085
Horse-power of engines ordinarily in use .. h.p.	4,635	4,558	5,159	4,880	4,398

25. **Shirts, Collars and Underclothing.**—Particulars of this industry are shown below for each State for 1960–61 and for Australia for a series of years.

## SHIRTS, COLLARS AND UNDERCLOTHING

1960–61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	154	150	21	28	14	1	368
Number of persons employed .. ..	5,254	5,557	1,048	471	(a)	(a)	12,864
Salaries and wages paid .. £'000	3,555	3,781	553	247	(a)	(a)	8,424
Value of power, fuel, etc., used .. £'000	67	62	8	5	(a)	(a)	148
Value of materials used .. £'000	7,901	6,736	539	272	(a)	(a)	15,795
Value of production .. £'000	5,630	6,178	764	380	(a)	(a)	13,360
Total value of output .. £'000	13,598	12,976	1,311	657	(a)	(a)	29,303
Value of land and buildings .. £'000	2,007	1,967	181	138	(a)	(a)	4,445
Value of plant and machinery .. £'000	608	550	81	48	(a)	(a)	1,334
Horse-power of engines ordinarily in use .. .. h.p.	1,980	2,784	273	212	(a)	(a)	5,454

(a) Not available for publication; figures are included in the total for Australia.

## AUSTRALIA

Particulars	1956–57	1957–58	1958–59	1959–60	1960–61
Number of factories .. ..	397	384	394	376	368
Number of persons employed .. ..	13,157	13,038	13,589	12,891	12,864
Salaries and wages paid .. £'000	7,640	7,718	8,223	8,326	8,424
Value of power, fuel, etc., used .. £'000	129	134	147	137	148
Value of materials used .. £'000	16,285	16,595	16,410	15,823	15,795
Value of production .. £'000	12,051	11,945	13,271	13,572	13,360
Total value of output .. £'000	28,465	28,674	29,828	29,532	29,303
Value of land and buildings .. £'000	3,543	3,587	3,924	4,050	4,445
Value of plant and machinery .. £'000	1,229	1,233	1,317	1,206	1,334
Horse-power of engines ordinarily in use h.p.	5,177	5,064	5,357	5,090	5,454

26. **Boots and Shoes.**—The following tables refer to boot and shoe factories as distinct from those devoted to repairing, except in Tasmania, where it has been necessary to include details of boot and shoe repairing, in order to avoid disclosure of confidential information, for that State. Factories engaged in the manufacture of sand shoes, goloshes and gum, etc. boots of rubber are not included here, being classified under Rubber Goods, *see* para. 43, page 245.

## BOOTS AND SHOES

1960–61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.(a)	Aust.
Number of factories .. ..	161	205	25	15	12	42	460
Number of persons employed .. ..	6,465	11,569	996	1,144	457	151	20,782
Salaries and wages paid .. £'000	5,240	9,501	716	1,034	332	90	16,913
Value of power, fuel, etc., used .. £'000	96	183	10	16	7	2	314
Value of materials used .. £'000	8,436	17,996	1,171	1,667	491	164	29,925
Value of production .. £'000	7,938	15,430	936	1,586	491	183	26,564
Total value of output .. £'000	16,470	33,609	2,117	3,269	989	349	56,803
Value of land and buildings .. £'000	1,925	3,437	140	362	171	123	6,158
Value of plant and machinery .. £'000	828	3,581	205	461	239	45	5,359
Horse-power of engines ordinarily in use .. .. h.p.	4,381	7,338	920	1,067	715	178	14,599

BOOTS AND SHOES—*continued*

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	474	486	482	455	460
Number of persons employed .. ..	21,432	20,839	20,449	20,201	20,782
Salaries and wages paid .. .. £'000	15,234	15,090	15,148	16,101	16,913
Value of power, fuel, etc., used .. .. £'000	257	266	275	289	314
Value of materials used .. .. £'000	22,221	22,854	25,222	28,138	29,925
Value of production .. .. £'000	21,222	22,019	22,530	24,059	26,564
Total value of output .. .. £'000	43,700	45,139	48,027	52,486	56,803
Value of land and buildings .. .. £'000	4,267	4,567	5,254	5,551	6,158
Value of plant and machinery .. .. £'000	3,715	3,979	4,307	4,651	5,359
Horse-power of engines ordinarily in use h.p.	16,496	16,663	17,572	17,674	14,599

(a) Includes details of boot and shoe repairing.

27. *Flour-milling.*—The following table shows particulars of the flour-milling industry in each State for the year 1960-61 and for Australia for a series of years.

## FLOUR-MILLING

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	43	33	12	22	18	4	132
Number of persons employed .. ..	1,541	1,321	580	460	433	128	4,463
Salaries and wages paid .. .. £'000	1,830	1,440	578	510	421	138	4,917
Value of power, fuel, etc., used .. .. £'000	376	250	92	100	108	18	944
Value of materials used .. .. £'000	23,212	19,456	6,455	6,163	6,295	1,245	62,826
Value of production .. .. £'000	5,019	3,538	1,211	976	850	243	11,837
Total value of output .. .. £'000	28,607	23,244	7,758	7,239	7,253	1,506	75,607
Value of land and buildings .. .. £'000	2,840	2,280	810	558	683	188	7,359
Value of plant and machinery .. .. £'000	2,186	1,646	701	509	488	154	5,684
Horse-power of engines ordinarily in use .. .. h.p.	18,292	15,242	5,047	5,215	5,149	1,320	50,265

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	143	142	135	135	132
Number of persons employed .. ..	4,729	4,284	4,301	4,410	4,463
Salaries and wages paid .. .. £'000	4,375	4,190	4,281	4,657	4,917
Value of power, fuel, etc., used .. .. £'000	946	827	827	928	944
Value of materials used .. .. £'000	59,094	53,659	51,806	57,955	62,826
Value of production .. .. £'000	9,608	9,934	9,816	11,100	11,837
Total value of output .. .. £'000	69,648	64,420	62,449	69,983	75,607
Value of land and buildings .. .. £'000	5,686	6,322	6,711	6,982	7,359
Value of plant and machinery .. .. £'000	5,690	5,962	5,902	6,175	5,684
Horse-power of engines ordinarily in use h.p.	48,103	48,449	48,684	49,253	50,265

28. *Bakeries.*—Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on is given in the table below. Since the details refer only to establishments coming within the definition of a factory as explained at the beginning of this chapter, the table does not give complete details of the industry, as a large number of bakeries, etc. not coming within the definition are excluded.

## BAKERIES (INCLUDING CAKES AND PASTRY)

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.(a)	Aust.(a)
Number of factories ..	1,540	1,118	508	287	292	150	3,895
Number of persons employed ..	8,444	5,989	2,617	1,755	1,101	1,837	21,743
Salaries and wages paid .. £'000	6,600	4,483	1,665	1,368	671	1,659	16,446
Value of power, fuel, etc., used .. £'000	1,106	785	302	215	146	183	2,737
Value of materials used .. £'000	19,382	13,436	5,732	4,298	2,544	6,115	51,507
Value of production .. £'000	16,480	9,698	3,927	2,924	1,869	3,411	38,309
Total value of output .. £'000	36,968	23,919	9,961	7,437	4,559	9,709	92,553
Value of land and buildings .. £'000	10,929	8,323	1,948	1,934	1,178	1,968	26,280
Value of plant and machinery .. £'000	6,699	4,841	1,543	1,372	892	2,254	17,601
Horse-power of engines ordinarily in use .. .. h.p.	13,233	11,928	3,526	3,794	2,336	6,082	40,899

## AUSTRALIA(a)

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories ..	3,813	3,986	4,150	3,999	3,895
Number of persons employed ..	19,964	20,323	20,994	21,253	21,743
Salaries and wages paid .. £'000	12,663	13,110	13,729	14,936	16,446
Value of power, fuel, etc., used .. £'000	2,308	2,440	2,546	2,624	2,737
Value of materials used .. £'000	40,704	43,476	45,612	48,387	51,507
Value of production .. £'000	29,706	29,816	32,182	35,395	38,309
Total value of output .. £'000	72,718	75,732	80,340	86,406	92,553
Value of land and buildings .. £'000	17,991	20,205	22,220	23,950	26,280
Value of plant and machinery .. £'000	10,590	11,797	13,551	15,122	17,601
Horse-power of engines ordinarily in use .. h.p.	30,204	32,162	33,716	34,953	40,899

(a) Includes confectionery in Tasmania.

29. Sugar-mills and Sugar Refineries.—Sugar-cane is grown in New South Wales and Queensland, and particulars of area, yield, etc., are given in detail in the chapter Rural Industry. The products of the sugar-mill are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment.

The following table shows the number of sugar-mills and the number of persons employed therein in New South Wales and Queensland for the years 1956-57 to 1960-61.

## SUGAR-MILLS

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
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## NEW SOUTH WALES

Number of factories ..	3	3	3	3	3
Number of persons employed ..	153	170	254	243	200

## QUEENSLAND

Number of factories ..	31	31	31	31	31
Number of persons employed ..	7,099	6,547	6,621	6,197	6,014

In 1960-61, there were two sugar refineries in Queensland and one each in New South Wales, Victoria, South Australia and Western Australia.



30. Confectionery.—Particulars for 1960-61 for each State and for Australia for a series of years are shown hereunder.

**CONFECTIONERY**  
1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.(b)
Number of factories .. ..	84	87	16	16	6	(a)	209
Number of persons employed ..	2,856	3,198	171	373	292	(a)	6,890
Salaries and wages paid .. £'000	2,501	2,636	101	221	207	(a)	5,666
Value of power, fuel, etc., used .. £'000	269	265	8	26	23	(a)	591
Value of materials used .. £'000	8,606	7,670	375	638	594	(a)	17,883
Value of production .. £'000	6,645	4,833	191	377	345	(a)	12,391
Total value of output .. £'000	15,520	12,768	574	1,041	962	(a)	30,865
Value of land and buildings .. £'000	2,544	2,469	122	358	97	(a)	5,590
Value of plant and machinery .. £'000	2,423	2,677	62	166	100	(a)	5,428
Horse-power of engines ordinarily in use .. .. h.p.	13,717	15,951	353	1,484	501	(a)	32,006

**AUSTRALIA(b)**

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	213	217	209	214	209
Number of persons employed ..	6,818	6,789	6,704	6,765	6,890
Salaries and wages paid .. £'000	4,866	4,982	5,037	5,493	5,666
Value of power, fuel, etc., used .. £'000	509	529	536	555	591
Value of materials used .. £'000	15,391	16,052	16,842	17,674	17,883
Value of production .. £'000	9,885	9,771	10,586	11,139	12,391
Total value of output .. £'000	25,785	26,352	27,964	29,368	30,865
Value of land and buildings .. £'000	3,239	4,351	4,812	5,309	5,590
Value of plant and machinery .. £'000	3,582	3,891	4,572	4,745	5,428
Horse-power of engines ordinarily in use h.p.	27,348	29,256	30,504	30,571	32,006

(a) Included with bakeries.

(b) Excludes Tasmania.

31. Jam, Fruit and Vegetable Canning, Pickles, Sauces, Vinegar.—The following table shows particulars of factories included in this class for each State for 1960-61 and for Australia for a series of years.

**JAM, FRUIT AND VEGETABLE CANNING, PICKLES, SAUCES, VINEGAR**  
1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	52	55	19	19	9	18	172
Number of persons employed ..	2,654	4,755	1,338	940	147	1,031	10,865
Salaries and wages paid .. £'000	2,485	4,657	1,128	744	116	947	10,077
Value of power, fuel, etc., used .. £'000	287	501	75	67	10	97	1,037
Value of materials used .. £'000	9,855	21,177	5,540	2,895	446	1,954	41,867
Value of production .. £'000	6,016	10,269	1,811	1,380	213	1,387	21,076
Total value of output .. £'000	16,158	31,947	7,426	4,342	669	3,438	63,980
Value of land and buildings .. £'000	2,595	8,005	658	664	156	1,071	13,149
Value of plant and machinery .. £'000	2,251	6,299	409	1,066	72	1,114	11,211
Horse-power of engines ordinarily in use .. .. h.p.	10,896	21,466	2,782	3,329	450	5,896	44,819

**AUSTRALIA**

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	182	187	180	177	172
Number of persons employed ..	12,019	11,407	10,762	10,793	10,865
Salaries and wages paid .. £'000	9,698	9,752	9,186	9,894	10,077
Value of power, fuel, etc., used .. £'000	957	978	949	992	1,037
Value of materials used .. £'000	39,874	41,159	38,358	39,953	41,867
Value of production .. £'000	18,792	19,753	17,458	20,254	21,076
Total value of output .. £'000	59,623	61,890	56,765	61,199	63,980
Value of land and buildings .. £'000	9,790	10,621	11,630	12,095	13,149
Value of plant and machinery .. £'000	8,752	9,275	9,573	10,162	11,211
Horse-power of engines ordinarily in use h.p.	45,820	55,824	48,539	42,250	44,819

32. **Bacon-curing.**—The table hereunder shows particulars of factories engaged in bacon-curing in each State for 1960-61 and for Australia for a series of years.

**BACON-CURING**  
1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	28	15	9	17	4	10	83
Number of persons employed ..	793	742	1,667	524	320	169	4,215
Salaries and wages paid .. £'000	874	755	1,512	533	297	164	4,135
Value of power, fuel, etc., used .. £'000	94	87	125	76	37	21	440
Value of materials used .. £'000	6,320	6,023	9,254	3,324	3,021	1,103	29,045
Value of production .. £'000	1,771	1,488	3,006	889	521	287	7,962
Total value of output .. £'000	8,185	7,598	12,385	4,289	3,579	1,411	37,447
Value of land and buildings .. £'000	825	788	1,313	574	164	299	3,963
Value of plant and machinery .. £'000	504	435	777	327	120	81	2,244
Horse-power of engines ordinarily in use .. .. h.p.	3,053	2,858	5,398	2,694	1,314	727	16,044

**AUSTRALIA**

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	81	80	80	83	83
Number of persons employed ..	3,472	3,745	4,162	4,068	4,215
Salaries and wages paid .. £'000	2,956	3,311	3,649	3,853	4,135
Value of power, fuel, etc., used .. £'000	362	403	431	432	440
Value of materials used .. £'000	22,373	22,147	25,037	28,218	29,045
Value of production .. £'000	5,273	6,798	6,473	6,779	7,962
Total value of output .. £'000	28,008	29,348	31,941	35,429	37,447
Value of land and buildings .. £'000	2,452	2,667	3,104	3,388	3,963
Value of plant and machinery .. £'000	1,512	1,654	1,806	2,050	2,244
Horse-power of engines ordinarily in use h.p.	13,472	14,747	14,108	15,670	16,044

Bacon and ham and other pig products are dealt with more fully in the chapter Rural Industry.

33. **Butter, Cheese and Condensed and Processed Milk.**—The following table shows particulars of butter, cheese and condensed and dried milk factories in each State for 1960-61 and for Australia for a series of years.

**BUTTER, CHEESE AND CONDENSED AND PROCESSED MILK**  
1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	72	130	74	44	19	22	361
Number of persons employed ..	2,489	5,581	1,611	661	332	398	11,072
Salaries and wages paid .. £'000	2,507	6,106	1,515	679	295	422	11,524
Value of power, fuel, etc., used .. £'000	701	1,541	304	121	74	84	2,825
Value of materials used .. £'000	17,503	56,175	19,239	5,186	3,617	4,887	106,607
Value of production .. £'000	4,905	13,277	3,114	1,400	630	1,161	24,487
Total value of output .. £'000	23,109	70,993	22,657	6,707	4,321	6,132	133,919
Value of land and buildings .. £'000	3,420	7,659	2,102	690	400	431	14,702
Value of plant and machinery .. £'000	3,620	9,004	2,719	699	465	539	17,046
Horse-power of engines ordinarily in use .. .. h.p.	31,523	44,895	25,440	5,740	3,844	2,950	114,392

**AUSTRALIA**

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	371	366	363	363	361
Number of persons employed ..	11,189	10,870	10,897	11,139	11,072
Salaries and wages paid .. £'000	10,068	9,995	10,270	11,042	11,524
Value of power, fuel, etc., used .. £'000	2,797	2,692	2,816	2,920	2,825
Value of materials used .. £'000	101,517	94,566	101,929	112,307	106,607
Value of production .. £'000	19,265	19,561	21,446	24,816	24,487
Total value of output .. £'000	123,579	116,819	126,191	140,043	133,919
Value of land and buildings .. £'000	11,985	12,558	13,518	14,022	14,702
Value of plant and machinery .. £'000	14,631	15,254	15,819	16,169	17,046
Horse-power of engines ordinarily in use h.p.	108,157	109,647	107,880	111,149	114,392

The butter, cheese and condensed milk industries are dealt with more fully in the chapter Rural Industry.

34. **Meat and Fish Preserving.**—The industries included in this group are engaged chiefly in the freezing and preserving of meat. Works have been established at the seaports for the purpose of handling beef, lamb and mutton for export, and insulated space for the carriage of chilled and frozen produce is provided by shipping companies trading between Australia and other parts of the world. In recent years, there has been considerable expansion in the canning of meat and fish.

### MEAT AND FISH PRESERVING

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	10	12	31	19	64	7	143
Number of persons employed ..	433	548	5,961	264	1,704	121	9,031
Salaries and wages paid .. £'000	429	614	6,200	187	1,782	107	9,319
Value of power, fuel, etc., used .. £'000	78	111	773	25	200	12	1,199
Value of materials used .. £'000	1,934	3,803	48,011	1,544	6,925	469	62,686
Value of production .. £'000	975	1,407	9,110	432	3,300	162	15,386
Total value of output .. £'000	2,987	5,321	57,894	2,001	10,425	643	79,271
Value of land and buildings .. £'000	376	1,615	4,394	195	2,626	141	9,347
Value of plant and machinery .. £'000	390	1,189	3,463	159	1,437	118	6,756
Horse-power of engines ordinarily in use .. .. h.p.	1,680	3,204	28,525	840	9,942	540	44,731

### AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	113	114	115	128	143
Number of persons employed ..	8,866	8,878	10,142	9,326	9,031
Salaries and wages paid .. £'000	8,366	8,690	10,699	9,914	9,319
Value of power, fuel, etc., used .. £'000	1,099	1,128	1,292	1,244	1,199
Value of materials used .. £'000	45,483	45,695	61,816	65,116	62,686
Value of production .. £'000	14,385	13,723	15,354	14,195	15,386
Total value of output .. £'000	60,967	60,546	78,462	80,555	79,271
Value of land and buildings .. £'000	6,241	6,710	7,459	8,617	9,347
Value of plant and machinery .. £'000	4,147	4,594	5,261	5,579	6,756
Horse-power of engines ordinarily in use h.p.	36,517	36,956	38,994	39,390	44,731

Particulars of the quantities and values of beef, mutton and lamb preserved by cold process exported from Australia over a series of years will be found in the chapter Rural Industry.

35. **Breweries.**—The following table gives particulars of breweries for Australia for each of the years 1956-57 to 1960-61. Since a separate return for each branch of their activities is not available from all breweries, the figures may include details of employment, wages, output, etc., not directly concerned with the brewing of beer, although associated with it. These extraneous activities include cooperage, malt works, aerated waters, etc.

### BREWERIES

#### AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	27	26	27	25	25
Number of persons employed ..	6,107	5,909	5,830	5,701	5,626
Salaries and wages paid .. £'000	6,196	6,228	6,232	6,438	6,654
Value of power, fuel, etc., used .. £'000	1,509	1,479	1,488	1,491	1,494
Value of materials used .. £'000	21,238	22,146	22,416	22,731	24,303
Value of production .. £'000	16,266	17,271	16,964	18,620	19,789
Total value of output(a) .. £'000	39,013	40,896	40,868	42,842	45,586
Value of land and buildings .. £'000	11,069	11,797	12,716	12,924	13,003
Value of plant and machinery .. £'000	14,863	15,510	15,727	15,426	14,848
Horse-power of engines ordinarily in use h.p.	45,268	44,869	46,525	48,396	48,490

(a) Excludes Excise Duty.

36. Aerated Waters and Cordials. The following table shows particulars of aerated water and cordial factories in each State for the year 1960-61 and for Australia for a series of years.

## AERATED WATERS AND CORDIALS

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	184	102	159	48	42	13	548
Number of persons employed ..	1,937	1,278	913	647	317	183	5,275
Salaries and wages paid .. £'000	1,669	1,201	585	583	248	172	4,458
Value of power, fuel, etc., used .. £'000	157	104	62	43	24	20	410
Value of materials used .. .. £'000	4,943	3,854	1,753	1,536	762	552	13,400
Value of production .. .. £'000	4,542	3,303	1,736	1,111	554	412	11,658
Total value of output .. .. £'000	9,642	7,261	3,551	2,690	1,340	984	25,468
Value of land and buildings .. £'000	2,809	2,554	850	754	323	198	7,488
Value of plant and machinery .. £'000	1,677	1,539	690	712	333	211	5,162
Horse-power of engines ordinarily in use .. .. h.p.	6,137	3,587	2,464	2,473	1,205	497	16,363

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	576	562	559	552	548
Number of persons employed ..	4,690	4,954	4,877	5,021	5,275
Salaries and wages paid .. .. £'000	3,184	3,557	3,722	4,102	4,458
Value of power, fuel, etc., used .. £'000	312	351	367	406	410
Value of materials used .. .. £'000	9,099	10,503	11,328	12,765	13,400
Value of production .. .. £'000	8,033	9,365	10,024	11,355	11,658
Total value of output .. .. £'000	17,444	20,219	21,719	24,526	25,468
Value of land and buildings .. £'000	4,398	4,851	5,359	6,232	7,488
Value of plant and machinery .. £'000	3,619	3,601	3,874	4,516	5,162
Horse-power of engines ordinarily in use .. h.p.	16,967	14,947	14,988	15,799	16,363

37. Wineries and Distilleries.—The following table shows particulars of the operations of Wineries and Distilleries for each State during 1960-61 and for Australia for a series of years.

## WINERIES AND DISTILLERIES

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	30	30	5	73	26	..	164
Number of persons employed ..	226	327	147	1,322	73	..	2,095
Salaries and wages paid .. .. £'000	274	309	156	1,235	43	..	2,017
Value of power, fuel, etc., used .. £'000	117	57	67	139	3	..	383
Value of materials used .. .. £'000	2,633	978	424	5,135	158	..	9,328
Value of production .. .. £'000	971	868	373	2,102	113	..	4,427
Total value of output .. .. £'000	3,721	1,903	864	7,376	274	..	14,138
Value of land and buildings .. £'000	520	454	170	1,853	84	..	3,081
Value of plant and machinery .. £'000	726	439	355	1,431	64	..	3,015
Horse-power of engines ordinarily in use .. .. h.p.	2,009	2,172	780	14,057	432	..	19,450

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	157	160	158	165	164
Number of persons employed ..	2,027	2,066	2,021	2,058	2,095
Salaries and wages paid .. .. £'000	1,699	1,800	1,827	1,890	2,017
Value of power, fuel, etc., used .. £'000	423	426	396	402	383
Value of materials used .. .. £'000	6,461	7,448	7,900	7,987	9,328
Value of production .. .. £'000	3,704	4,569	3,889	4,900	4,427
Total value of output .. .. £'000	10,588	12,443	12,185	13,289	14,138
Value of land and buildings .. £'000	2,363	2,458	2,588	2,759	3,081
Value of plant and machinery .. £'000	2,348	2,339	2,573	2,808	3,015
Horse-power of engines ordinarily in use .. h.p.	11,412	11,548	10,773	11,604	19,450

38. Tobacco, Cigars and Cigarettes.—Particulars of establishments in which the manufacture of tobacco, cigars or cigarettes was carried on during 1960–61 are shown below for each State and for Australia for a series of years. There were no such factories in South Australia or Tasmania.

**TOBACCO, CIGARS AND CIGARETTES**  
1960–61

Particulars	N.S.W.	Vic.	Q'land	W. Aust.	Aust.
Number of factories .. ..	7	7	5	1	20
Number of persons employed .. ..	2,794	2,299	(a)	(a)	5,178
Salaries and wages paid .. £'000	2,919	2,251	(a)	(a)	5,232
Value of power, fuel, etc., used .. £'000	107	111	(a)	(a)	225
Value of materials used .. £'000	23,041	17,607	(a)	(a)	40,716
Value of production .. £'000	10,797	7,452	(a)	(a)	18,378
Total value of output(b) .. £'000	33,945	25,170	(a)	(a)	59,319
Value of land and buildings .. £'000	1,244	1,785	(a)	(a)	3,551
Value of plant and machinery .. £'000	3,105	2,849	(a)	(a)	6,209
Horse-power of engines ordinarily in use h.p.	5,255	4,708	(a)	(a)	10,342

**AUSTRALIA**

Particulars	1956–57	1957–58	1958–59	1959–60	1960–61
Number of factories .. ..	29	27	22	21	20
Number of persons employed .. ..	4,630	4,754	4,779	5,046	5,178
Salaries and wages paid .. £'000	4,038	4,203	4,178	4,774	5,232
Value of power, fuel, etc., used .. £'000	127	145	160	176	225
Value of materials used .. £'000	33,535	35,408	35,775	36,578	40,716
Value of production .. £'000	10,999	11,177	13,451	16,889	18,378
Total value of output(b) .. £'000	44,661	46,730	49,386	53,643	59,319
Value of land and buildings .. £'000	1,764	2,962	2,700	3,620	3,551
Value of plant and machinery .. £'000	3,059	4,156	4,178	4,961	6,209
Horse-power of engines ordinarily in use h.p.	10,990	10,586	10,384	10,417	10,342

(a) Not available for publication: figures are included in the total for Australia.  
Excise Duty.

(b) Excludes

39. Sawmills, etc.—The most important industry in Class X. is sawmilling. Because of difficulties associated with the classifying of sawmills into forest and town mills, they have been combined in the following table, together with plywood and veneer mills. The figures exclude particulars of a small number of itinerant and travelling sawmills.

**SAWMILLS AND PLYWOOD AND VENEER MILLS**  
1960–61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	935	510	619	86	225	328	2,703
Number of persons employed .. ..	10,860	6,788	7,835	2,328	4,085	2,805	34,701
Salaries and wages paid .. £'000	10,072	6,700	6,624	2,110	3,555	2,532	31,593
Value of power, fuel, etc., used .. £'000	861	529	476	193	312	250	2,621
Value of materials used .. £'000	27,405	16,350	13,004	6,249	5,950	6,098	75,056
Value of production .. £'000	18,777	11,721	11,096	3,729	6,460	4,743	56,526
Total value of output .. £'000	47,043	28,600	24,576	10,171	12,722	11,091	134,203
Value of land and buildings .. £'000	6,269	4,521	2,335	3,153	1,281	989	18,548
Value of plant and machinery .. £'000	6,392	3,542	3,740	2,956	2,004	1,883	20,517
Horse-power of engines ordinarily in use .. .. h.p.	127,635	83,733	96,657	36,724	41,648	38,883	425,280

**AUSTRALIA**

Particulars	1956–57	1957–58	1958–59	1959–60	1960–61
Number of factories .. ..	3,000	2,910	2,805	2,791	2,703
Number of persons employed .. ..	35,835	35,185	35,891	36,040	34,701
Salaries and wages paid .. £'000	27,563	27,932	29,478	31,172	31,593
Value of power, fuel, etc., used .. £'000	2,056	2,143	2,382	2,604	2,621
Value of materials used .. £'000	66,817	69,644	70,253	76,676	75,056
Value of production .. £'000	47,928	50,246	53,649	58,412	56,526
Total value of output .. £'000	116,801	122,033	126,284	137,692	134,203
Value of land and buildings .. £'000	12,079	13,924	14,545	16,656	18,548
Value of plant and machinery .. £'000	17,086	17,971	18,737	19,635	20,517
Horse-power of engines ordinarily in use h.p.	378,902	380,203	395,630	407,440	425,280

40. Cabinet and Furniture Making and Upholstery.—These industries constitute the principal manufactures in Class XI. The following table shows particulars for each State in 1960–61 and for Australia for a series of years.

## CABINET AND FURNITURE MAKING AND UPHOLSTERY, 1960–61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	565	479	214	163	153	59	1,633
Number of persons employed .. ..	6,272	4,369	2,058	1,590	1,072	350	15,711
Salaries and wages paid .. £'000	6,312	3,952	1,586	1,309	787	272	14,218
Value of power, fuel, etc., used .. £'000	157	98	36	33	20	6	350
Value of materials used .. £'000	11,948	6,658	3,095	2,291	1,552	455	25,999
Value of production .. £'000	10,198	6,529	2,532	2,102	1,335	439	23,135
Total value of output .. £'000	22,303	13,285	5,663	4,426	2,907	900	49,484
Value of land and buildings .. £'000	5,269	4,107	1,435	973	681	254	12,719
Value of plant and machinery .. £'000	1,217	790	379	324	202	52	2,964
Horse-power of engines ordinarily in use .. .. h.p.	16,596	11,795	6,427	5,548	3,606	1,341	45,313

## AUSTRALIA

Particulars	1956–57	1957–58	1958–59	1959–60	1960–61
Number of factories .. ..	1,635	1,644	1,629	1,664	1,633
Number of persons employed .. ..	15,164	15,929	16,012	16,475	15,711
Salaries and wages paid .. £'000	11,193	12,462	12,963	14,187	14,218
Value of power, fuel, etc., used .. £'000	289	311	334	346	350
Value of materials used .. £'000	17,926	20,860	22,222	26,123	25,999
Value of production .. £'000	18,059	20,163	21,228	23,501	23,135
Total value of output .. £'000	36,274	41,334	43,784	49,970	49,484
Value of land and buildings .. £'000	7,759	9,069	10,457	11,618	12,719
Value of plant and machinery .. £'000	2,424	2,515	2,679	2,869	2,964
Horse-power of engines ordinarily in use h.p.	45,096	46,447	46,539	45,955	45,313

41. Printing Works.—The following table gives particulars of establishments engaged in general printing in each State for 1960–61 and for Australia for a series of years. These establishments include those engaged in lithographic printing, bookbinding, paper ruling and linotyping and Government printing works.

GOVERNMENT AND GENERAL PRINTING WORKS  
1960–61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	707	588	121	103	91	31	1,641
Number of persons employed .. ..	12,218	10,303	2,447	1,905	1,523	684	29,080
Salaries and wages paid .. £'000	12,967	10,636	2,104	1,741	1,294	623	29,365
Value of power, fuel, etc., used .. £'000	402	332	54	45	42	18	893
Value of materials used .. £'000	18,251	13,748	2,150	2,052	1,443	605	38,249
Value of production .. £'000	23,017	18,407	3,349	2,956	2,333	1,061	51,123
Total value of output .. £'000	41,670	32,487	5,553	5,053	3,818	1,684	90,265
Value of land and buildings .. £'000	11,730	10,285	1,037	1,067	890	604	25,613
Value of plant and machinery .. £'000	9,603	8,052	1,343	1,519	953	419	21,889
Horse-power of engines ordinarily in use .. .. h.p.	20,439	17,489	2,968	2,807	2,530	1,036	47,269

## AUSTRALIA

Particulars	1956–57	1957–58	1958–59	1959–60	1960–61
Number of factories .. ..	1,399	1,431	1,518	1,573	1,641
Number of persons employed .. ..	25,271	25,916	26,827	27,744	29,080
Salaries and wages paid .. £'000	20,632	22,099	23,705	26,711	29,365
Value of power, fuel, etc., used .. £'000	621	675	729	797	893
Value of materials used .. £'000	27,202	29,809	32,420	35,175	38,249
Value of production .. £'000	35,136	38,068	41,036	46,567	51,123
Total value of output .. £'000	62,959	68,552	74,185	82,539	90,265
Value of land and buildings .. £'000	13,310	15,084	19,041	21,599	25,613
Value of plant and machinery .. £'000	14,586	15,705	17,535	19,351	21,889
Horse-power of engines ordinarily in use h.p.	36,784	37,963	40,751	43,561	47,269

The following table gives similar particulars in respect of establishments producing newspapers and periodicals.

## NEWSPAPERS AND PERIODICALS

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	179	128	55	36	17	5	420
Number of persons employed ..	7,374	3,765	2,236	1,212	785	417	15,789
Salaries and wages paid .. £'000	8,899	4,652	2,587	1,392	962	513	19,005
Value of power, fuel, etc., used £'000	302	159	84	49	50	10	654
Value of materials used .. £'000	13,263	9,672	3,412	2,366	1,611	413	30,737
Value of production .. £'000	16,231	7,656	4,693	2,697	2,015	705	33,997
Total value of output .. £'000	29,796	17,487	8,189	5,112	3,676	1,128	65,388
Value of land and buildings £'000	8,214	3,124	1,462	2,090	863	263	16,016
Value of plant and machinery £'000	7,681	3,122	1,555	1,244	593	221	14,416
Horse-power of engines ordinarily in use .. .. h.p.	18,877	12,018	6,590	4,725	2,562	1,043	45,815

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	412	407	423	429	420
Number of persons employed ..	14,640	14,387	14,878	15,437	15,789
Salaries and wages paid .. £'000	13,134	13,997	15,291	17,056	19,005
Value of power, fuel, etc., used .. £'000	551	562	590	615	654
Value of materials used .. £'000	24,009	25,299	27,746	29,726	30,737
Value of production .. £'000	25,110	25,580	27,738	30,767	33,997
Total value of output .. £'000	49,670	51,441	56,074	61,108	65,388
Value of land and buildings .. £'000	10,763	12,112	13,739	15,193	16,016
Value of plant and machinery .. £'000	11,315	10,833	11,595	13,960	14,416
Horse-power of engines ordinarily in use h.p.	36,980	37,440	37,440	40,116	45,815

42. **Paper Making.**—Although the paper manufacturing industry has been established in Australia for many years, it was not until the manufacture of paper pulp from indigenous timber commenced in 1938-39 that any marked development occurred. The number of factories operating in 1960-61 comprised four in New South Wales, ten in Victoria, two in Queensland, two in South Australia, one in Western Australia, and three in Tasmania. In Tasmania, newsprint, writing and printing papers are produced, and in the other States wrappings, other papers and boards. Particulars for this industry are shown in the following table.

Mills producing pulp from eucalypt timber are operating in Victoria and Tasmania, while in South Australia pulp is being produced from locally-grown softwoods.

## PAPER MAKING, INCLUDING PULP MILLS: AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	17	18	18	20	22
Number of persons employed ..	7,903	8,088	8,406	8,775	8,822
Salaries and wages paid .. £'000	8,783	9,752	10,422	11,980	12,055
Value of power, fuel, etc., used .. £'000	2,996	3,131	3,341	3,906	4,200
Value of materials used .. £'000	22,419	22,903	25,025	26,601	27,924
Value of production .. £'000	19,383	23,910	25,817	28,326	27,658
Total value of output .. £'000	44,798	49,944	54,183	58,833	59,782
Value of land and buildings .. £'000	9,527	12,203	12,317	13,307	13,902
Value of plant and machinery .. £'000	18,141	21,835	22,482	27,018	33,377
Horse-power of engines ordinarily in use h.p.	170,382	174,557	179,364	189,774	216,539

43. **Rubber Goods.**—The following table shows particulars of this industry for each State during 1960-61 and for Australia for a series of years. Establishments engaged primarily in the retreading and repairing of tyres are excluded.

## RUBBER GOODS

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	42	49	15	8	2	..	116
Number of persons employed .. ..	6,581	6,632	1,219	(a)	(a)	..	15,416
Salaries and wages paid .. £'000	7,533	7,318	1,007	(a)	(a)	..	17,038
Value of power, fuel, etc., used .. £'000	985	1,152	125	(a)	(a)	..	2,382
Value of materials used .. £'000	17,963	19,877	2,805	(a)	(a)	..	42,038
Value of production .. £'000	10,003	13,666	2,323	(a)	(a)	..	28,026
Total value of output .. £'000	28,951	34,695	5,253	(a)	(a)	..	72,446
Value of land and buildings .. £'000	2,771	5,057	630	(a)	(a)	..	9,121
Value of plant and machinery .. £'000	2,925	6,676	320	(a)	(a)	..	10,265
Horse-power of engines ordinarily in use .. .. h.p.	55,257	61,646	9,101	(a)	(a)	..	131,947

(a) Not available for publication; figures are included in the total for Australia.

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	120	118	122	118	116
Number of persons employed .. ..	14,859	15,017	15,227	15,620	15,416
Salaries and wages paid .. £'000	14,296	14,931	15,442	17,142	17,038
Value of power, fuel, etc., used .. £'000	2,007	2,131	2,205	2,318	2,382
Value of materials used .. £'000	34,378	36,044	36,339	43,382	42,038
Value of production .. £'000	23,246	24,782	27,108	26,072	28,026
Total value of output .. £'000	59,631	62,957	65,652	71,772	72,446
Value of land and buildings .. £'000	6,292	7,120	7,288	7,585	9,121
Value of plant and machinery .. £'000	6,645	7,839	7,632	9,543	10,265
Horse-power of engines ordinarily in use h.p.	114,562	120,602	126,901	128,393	131,947

44. Plastic Moulding and Products.—The following table shows particulars of this industry for each State for the year 1960-61 and for Australia for a series of years.

## PLASTIC MOULDING AND PRODUCTS

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	188	157	12	24	16	1	398
Number of persons employed .. ..	4,355	5,754	126	303	(a)	(a)	10,658
Salaries and wages paid .. £'000	4,419	5,889	99	267	(a)	(a)	10,753
Value of power, fuel, etc., used .. £'000	383	482	6	23	(a)	(a)	900
Value of materials used .. £'000	9,254	14,386	213	549	(a)	(a)	24,613
Value of production .. £'000	8,321	11,298	207	407	(a)	(a)	20,395
Total value of output .. £'000	17,958	26,166	426	979	(a)	(a)	45,908
Value of land and buildings .. £'000	3,475	4,905	102	188	(a)	(a)	8,778
Value of plant and machinery .. £'000	3,972	5,397	108	158	(a)	(a)	9,747
Horse-power of engines ordinarily in use .. .. h.p.	15,899	24,070	349	979	(a)	(a)	41,635

(a) Not available for publication.

## AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	308	327	337	375	398
Number of persons employed .. ..	8,194	8,998	9,480	10,180	10,658
Salaries and wages paid .. £'000	6,724	7,823	8,774	10,160	10,753
Value of power, fuel, etc., used .. £'000	542	649	759	849	900
Value of materials used .. £'000	15,388	18,181	22,272	26,393	24,613
Value of production .. £'000	12,748	15,242	18,339	19,886	20,395
Total value of output .. £'000	28,678	34,072	41,370	47,128	45,908
Value of land and buildings .. £'000	4,627	5,425	6,081	7,806	8,778
Value of plant and machinery .. £'000	4,849	6,201	7,005	8,009	9,747
Horse-power of engines ordinarily in use h.p.	24,767	27,543	34,384	37,055	41,635



45. **Electric Light and Power Works.**—For further information on this subject see Chapter VII. Electric Power Generation and Distribution. Particulars of the industry for each State during the year 1960-61 and for Australia for a series of years are shown below.

### ELECTRIC LIGHT AND POWER WORKS

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	58	41	57	33	89	12	290
Number of persons employed ..	4,421	3,476	1,646	(a)	1,065	(a)	12,298
Salaries and wages paid .. £'000	5,456	4,261	1,885	(a)	1,297	(a)	15,018
Value of power, fuel, etc., used .. £'000	15,319	12,411	6,844	(a)	3,771	(a)	42,367
Value of materials used .. £'000	1,849	818	1,414	(a)	429	(a)	4,976
Value of production .. £'000	35,687	16,784	6,958	(a)	4,270	(a)	72,964
Total value of output .. £'000	52,855	30,013	15,236	(a)	8,470	(a)	120,307
Value of land and buildings .. £'000	50,157	23,336	10,671	(a)	4,318	(a)	139,790
Value of plant and machinery .. £'000	91,980	83,969	40,418	(a)	16,469	(a)	278,007
Generators installed—Kilowatt capacity .. .. '000 kW	2,853	1,546	767	(a)	372	(a)	6,665

### AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	328	319	305	304	290
Number of persons employed ..	12,473	12,833	13,124	12,810	12,298
Salaries and wages paid .. £'000	13,571	13,467	14,011	14,564	15,018
Value of power, fuel, etc., used .. £'000	39,830	40,261	39,383	40,756	42,367
Value of materials used .. £'000	4,396	4,740	4,744	4,839	4,976
Value of production .. £'000	50,722	55,514	63,422	68,582	72,964
Total value of output .. £'000	94,948	100,515	107,549	114,177	120,307
Value of land and buildings .. £'000	100,011	104,512	122,460	136,087	139,790
Value of plant and machinery .. £'000	191,352	213,926	235,844	259,899	278,007
Generators installed—Kilowatt capacity .. .. '000 kW	4,705	4,881	5,531	5,953	6,665

(a) Not available for publication; figures are included in the total for Australia.

Particulars of the types of engines and generators installed in Electric Light and Power Works and their rated horse-power are given on page 190.

46. **Gas-works.**—The following table shows particulars of gas-works in each State for the year 1960-61 and for Australia for a series of years.

### GAS-WORKS

1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	35	25	16	3	3	2	84
Number of persons employed ..	1,295	1,470	329	423	(a)	(a)	3,733
Salaries and wages paid .. £'000	1,622	1,896	322	500	(a)	(a)	4,582
Value of power, fuel, etc., used .. £'000	2,218	524	41	88	(a)	(a)	3,012
Value of materials used .. £'000	5,918	5,323	1,142	1,766	(a)	(a)	14,889
Value of production .. £'000	7,015	4,163	1,107	824	(a)	(a)	13,542
Total value of output .. £'000	15,151	10,010	2,290	2,678	(a)	(a)	31,443
Value of land and buildings .. £'000	1,915	3,969	782	238	(a)	(a)	7,235
Value of plant and machinery .. £'000	8,051	13,630	2,085	3,750	(a)	(a)	29,347
Horse-power of engines ordinarily in use .. .. h.p.	16,477	17,856	2,917	7,631	(a)	(a)	46,363

### AUSTRALIA

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of factories .. ..	94	88	88	88	84
Number of persons employed ..	4,138	3,783	3,917	3,790	3,733
Salaries and wages paid .. £'000	4,448	4,309	4,298	4,367	4,582
Value of power, fuel, light, etc., used .. £'000	2,591	2,720	2,712	2,942	3,012
Value of materials used .. £'000	15,598	15,030	14,996	14,738	14,889
Value of production .. £'000	9,894	10,577	11,239	12,037	13,542
Total value of output .. £'000	28,083	28,327	28,947	29,717	31,443
Value of land and buildings .. £'000	5,189	5,710	6,079	5,946	7,235
Value of plant and machinery .. £'000	27,667	26,823	28,127	29,346	29,347
Horse-power of engines ordinarily in use .. h.p.	44,373	44,913	46,743	46,058	46,363

(a) Not available for publication; figures are included in the total for Australia.

## CHAPTER VII

### ELECTRIC POWER GENERATION AND DISTRIBUTION

This chapter is divided into three major parts:—the Introduction, which deals briefly with the resources, generation and distribution, and future development of electric power in Australia; the Snowy Mountains Hydro-electric Scheme; and the origins, development, present situation and new projects of electrical systems in each Australian State and Territory. A Statistical Summary is appended.

The information contained in the chapter relates to situations existing and projects contemplated in 1962, and may be considerably affected by changes in policy or plans, or by developments in the projects themselves.

#### INTRODUCTION

1. **Distribution of Population and Location of Power Resources.**—The two principal centres of population and industry in Australia, the metropolitan areas of Sydney and Melbourne, make the greatest demands for electric power, and their growth has been associated with the development of large deposits of coal located relatively close to the source of demand. This, together with the fact that the major water resources are also located in the south-eastern portion of Australia, materially influences the distribution of industrial population and the location of major electric power stations.

By far the most important source of energy used in the production of electric power in Australia is coal. At 30th June, 1961, thermal power equipment represented 74 per cent., hydro plant 23 per cent., and internal combustion equipment 3 per cent. of the total installed generating capacity.

Most of Australia is poorly supplied with water, only about 15 per cent. receiving an annual rainfall of 30 inches or over, and these areas are confined largely to Tasmania and to the narrow coastal strip along the east coast of the mainland.

The only region on the mainland of Australia high enough to receive reliable winter snowfall, and from which, therefore, reasonably constant water supplies throughout the year can be expected, is the mountain chain which stretches from the high plateaux of south-eastern New South Wales to the north-eastern highlands of Victoria. The hydro-electric potential of this area is considerable, and plans have been formulated to develop more than 3,000,000 kW within the next 25 years. The two major construction projects in this area are the Snowy Mountains and Kiewa schemes. Other hydro-electric potential does exist on the mainland on the rivers of the coastal areas of New South Wales and Queensland, but the amount there available is smaller than the potential of the Alpine region. In Tasmania, hydro-electric resources have been estimated at about 50 per cent. of the total Australian hydro-electric potential. On the mainland the chief source of energy is coal; in Tasmania it is water.

2. **Electric Power Generation and Distribution.**—(i) *Ownership of Undertakings.* At the beginning of this century, Australia's electrical undertakings were carried on mainly by private enterprise, but with some measure of governmental control designed to provide standards of safety, and to define the scope and obligations of the private organizations. A trend towards public ownership commenced during the 1914–18 War and became more pronounced after the 1939–45 War. By 1961, all major generating stations supplying the public were, in varying degrees, under the control of statutory organizations constituted with the object of unifying and co-ordinating the generation and distribution of electricity supplies. There are still a large number of small private and municipal enterprises generating

power for supply to country towns, although central authorities are extending supply to these places wherever practicable. In many areas it has been, and remains, the practice for central authorities to sell power in bulk to local distributing organizations which undertake reticulation.

In addition to the private, local government and statutory organizations which generate and/or distribute electricity for sale, numerous firms generate power for use in their own establishments, particularly those engaged in mining pursuits remote from the main centres of population. This chapter, however, is concerned mainly with the activities of central electric stations, and the power regularly produced for such internal consumption is, in any case, a relatively small proportion of the total power produced.

(ii) *Power Production and Generating Capacity.* Since the 1939–45 War, the demand for power has increased considerably, industry and commerce have expanded rapidly, many new houses have been built, the population has increased by approximately 45 per cent., electricity supply has been extended to rural areas, and the use of domestic electric appliances has increased. The measures taken by the various authorities to satisfy the demand created by these developments are described in the following pages.

At 30th June, 1961, installed generating capacity in Australia was 6.66 million kW compared with 5.95 million kW in 1960, an increase of nearly 12 per cent. In 1960–61, each kW of installed capacity produced an average of nearly 4,000 kWh. These figures are based on Commonwealth totals; figures for the States vary, depending on such factors as the distribution of demand, number of consumers, and type of equipment employed. In 1961–62, the production of electric power in Australia was 26,450 million kWh.

### SNOWY MOUNTAINS HYDRO-ELECTRIC SCHEME\*

1. *Snowy Mountains Hydro-electric Power Act 1949.*—In July, 1949, the Commonwealth Government established the Snowy Mountains Authority, and empowered it to generate electricity by means of hydro-electric works in the Snowy Mountains Area; supply electricity to the Commonwealth:—(i) for defence purposes, (ii) for consumption in the Australian Capital Territory; and supply to a State, or to a State Authority, electricity not required for defence purposes or for consumption in the Australian Capital Territory.

The Authority is constituted by a Commissioner and two Associate Commissioners, the three appointments being made by the Governor-General. It is empowered to construct, maintain, operate, protect, manage and control works:—

- (a) for the collection, diversion and storage of water in the Snowy Mountains Area;
- (b) for the generation of electricity in that area;
- (c) for the transmission of the electricity generated;
- (d) incidental or related to the construction, maintenance, operation, protection, management or control of any works otherwise specified in the Act.

The Snowy Mountains Act is supported by a detailed agreement between the States of New South Wales and Victoria and the Commonwealth with regard to the construction and operation of the Scheme, the distribution of power and water, charges to be made for electricity, and other such matters. The Snowy Mountains Council, established under the terms of the Agreement and consisting of representatives of the Commonwealth, the Authority and the two States, directs and controls the operation and maintenance of the permanent works of the Authority and the allocation of loads to generating stations.

2. *Geography of the Area.*—The Snowy Mountains area in south-eastern New South Wales is the only part of the continent in which altitudes exceed 7,000 feet and in which there is a substantial area over the altitude of 6,000 feet. The precipitation which results from the presence of this barrier on the line of the prevailing winter depressions of Antarctic origin amounts to as much as 120 inches a year in the vicinity of Mt. Kosciusko, the highest point in Australia. The drainage from the snowfields is practically all to three systems—those of the Murray and Murrumbidgee Rivers, which flow inland, and that of the Snowy River, which flows southward to Bass Strait.

3. *Description of the Scheme.*—(i) *General.* The broad basis of the scheme is to transfer waters, which would otherwise flow to the sea unharnessed, from the Snowy River and its tributaries to the inland system, so that the water may be used for irrigation and

\* See also Chapter VIII. Water Conservation and Irrigation of this issue and special detailed article in Official Year Book No. 42, pp. 1103–1130.

to provide power. It involves two main diversions, the diversion of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River, and the diversion of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. These two diversions divide the scheme geographically into two sections, the Snowy-Tumut Development and the Snowy-Murray Development. (See the map on page 260.) For purposes of both power production and irrigation, it is necessary to regulate run-off, and this will be achieved by the use of Lake Eucumbene formed by the construction of Eucumbene Dam and other smaller storages to control the waters of the Eucumbene, Murrumbidgee, Tooma, and Tumut Rivers for the Snowy-Tumut development and of the Snowy River for the Snowy-Murray development. A sectional diagram of the Scheme appears on page 261.

(ii) *Snowy-Tumut Development.* This development comprises works for the diversion and regulation of the waters of the Eucumbene, Upper Tooma, Upper Murrumbidgee and Upper Tumut Rivers and their combined development through a series of power stations down the Tumut River. A major dam has been constructed on the Eucumbene River to create Lake Eucumbene, which has an ultimate usable storage of 3.5 million acre feet. The waters of the Upper Murrumbidgee River are diverted into Lake Eucumbene by a dam at Tantangara and a 10½-mile tunnel from Tantangara Reservoir. From Lake Eucumbene, the water flows through a 14-mile tunnel to Tumut Pond Reservoir on the upper reaches of the Tumut River, where it joins the waters of the Tumut River itself and the waters of the Tooma River diverted to Tumut Pond Reservoir by a diversion dam and a 9-mile tunnel. The 14-mile Eucumbene-Tumut Tunnel is used during periods of high flow to divert waters of the Tumut River from Happy Jacks Shaft or the combined waters of the Tumut and Tooma Rivers from Tumut Pond reservoir back to Lake Eucumbene for storage.

From Tumut Pond reservoir, water is conveyed by pressure tunnel to Tumut 1 underground Power Station (capacity 320,000 kW), returned to the Tumut River and then by another pressure tunnel to Tumut 2 underground Power Station (capacity 280,000 kW), thence discharging into Tumut 3 Reservoir at Lobs Hole, also on the Tumut River.

Tumut 3 and Tumut 4 Power Stations will be constructed between Tumut 3 and Blowering Reservoirs. Blowering Dam is to be constructed by the State of New South Wales and will provide for the regulation of power station discharges for use for irrigation in the Murrumbidgee Valley. The Authority will construct another power station at the foot of this dam to make use of irrigation releases for power purposes.

(iii) *Snowy-Murray Development.* The principal features of the Snowy-Murray development are the diversion of the main stream of the Snowy River by tunnels, shafts, and pipelines westwards through the Great Dividing Range into the Swampy Plain River in the catchment of the Upper Murray, and the development of power on the western slopes of the Alps. The main works of the development will be as follows.

- (a) Construction of a tunnel from the Snowy River near Island Bend through the Great Dividing Range to Geehi Reservoir on the Geehi River, and two power projects between Geehi Reservoir and the Swampy Plain River near Khancoban. The power stations associated with these two power projects, Murray 1 and Murray 2, will be the Scheme's largest stations and will have a combined capacity of 1,200,000 kW.
- (b) Construction of a tunnel from a small dam on the Snowy River near Island Bend to Eucumbene Dam to carry Snowy water to Lake Eucumbene for storage at times of high river flows. When river flows are lower than average, this stored water will be returned towards Island Bend and thence through the Snowy-Geehi Tunnel to Geehi Reservoir and Murray 1 and Murray 2 Power Stations.
- (c) Construction of a dam on the Snowy River near Jindabyne to store the residual flow of the Snowy and Eucumbene Rivers downstream from Island Bend and Eucumbene Dams, including the flows of major tributaries, the Crackenback and Mowamba Rivers, and the construction of a pumping plant, pipeline and tunnel to lift this water from Jindabyne Reservoir to the Snowy-Geehi Tunnel near Island Bend, where it will join the flow to the Geehi Reservoir for use through Murray 1 and Murray 2 Power Stations.

The power output of this section of the Scheme will be increased by the construction of subsidiary hydro-electric projects on the Upper Snowy River above Island Bend and on Windy Creek, a tributary of the Upper Geehi.

4. **Utilization of Power.**—The future electric power plants on the mainland of Australia will be predominantly thermal or thermo-nuclear installations, and in an electrical system in which the greater part of the energy is generated in thermal plants it is usually found that the hydro installations operate to the best advantage on peak load. However, the existing New South Wales and Victorian systems include a proportion of relatively old and less efficient installations which, for reasons of fuel economy, are also best used for the production of peak load power. Therefore, in order to utilize the potential of the Snowy Mountains Scheme most effectively, it is proposed to arrange the order of development so that the early stations will operate, initially, somewhat below the peak of the system load, with a progressive change to predominantly peak load operation as construction proceeds and as the load increases in magnitude.

The Snowy Mountains Scheme is situated about midway between the principal load centres of Sydney and Melbourne and is connected to those cities by 330,000 volt transmission lines. It is, consequently, in a position to take advantage of the diversity in the power requirements of these two load systems, a most important factor in so far as it affects the economy of operation of the supply systems of the two States.

Although most of the output from the scheme will go to the States of New South Wales and Victoria, the Commonwealth Government has the right to draw from the scheme its requirements of power and energy for the Australian Capital Territory and for defence purposes. For convenience, the Commonwealth's requirements are drawn from the New South Wales transmission network by an exchange arrangement between the Commonwealth and the Electricity Commission of New South Wales. Electricity over and above that required by the Commonwealth Government is divided between the States of New South Wales and Victoria in the ratio 2 : 1.

5. **Progress and Future Programme.**—The scheme's first power station, Guthega, of 60,000 kW initial capacity, came into operation in February, 1955. It was followed by Tumut 1, an underground power station with a capacity of 320,000 kW, in 1959, and by the 280,000 kW Tumut 2 underground power station in 1962. The total installed capacity of the scheme at present is 660,000 kW. Eucumbene Dam, which provides the major regulating storage for the scheme, was completed in May, 1958. Tumut Pond Dam, completed in September, 1958, provides the balancing storage for the power stations of the Upper Tumut Works. The first trans-mountain diversion of water from Lake Eucumbene to the Tumut River at Tumut Pond was made possible when the 14-mile Eucumbene-Tumut Tunnel was completed in June, 1959. The 10½-mile Murrumbidgee-Eucumbene Tunnel and the 9-mile Tooma-Tumut Tunnel came into operation early in 1961. Following the completion of the Upper Tumut Works, construction activity has been concentrated on the Snowy-Murray development. Construction has commenced on the 15-mile Eucumbene-Snowy Tunnel, the 9-mile trans-mountain Snowy-Geehi Tunnel, the 7½-mile Murray 1 Pressure Tunnel, the 1-mile Pressure Pipeline and the 760,000 kW Murray 1 Power Station. These works, together with the Khancoban Dam, which will regulate power station releases before discharge into the Murray River, are to be substantially completed in 1966. At this time, the first trans-mountain diversion of water from the Snowy River to the Murray River and the first generation of electricity from the Murray 1 Power Station will occur.

## STATES AND TERRITORIES

### § 1. New South Wales

1. **General.**—In Official Year Book No. 39, an account was given in some detail of the origin and development of electricity generation and distribution in New South Wales. At present, the following three main Acts govern electricity supply in New South Wales.

The *Local Government Act*, 1919, which lays down the various rights and responsibilities of local government bodies in the establishment and operation of electricity trading undertakings.

The *Electricity Development Act*, 1945–1957, which established the Electricity Authority of New South Wales as the body responsible for the co-ordination of electricity supply throughout the State.

The *Electricity Commission Act*, 1950–1961, which constituted the Electricity Commission of New South Wales as the major generating authority and not subject to the provisions of the *Electricity Development Act*.

2. **Organization.**—(i) *The Electricity Commission of New South Wales.* The Commission consists of five members, of whom one is full-time Chairman and one is full-time Vice-Chairman, and is directly responsible to the Minister for Local Government.

The main function of the Commission is the generation and transmission of electricity, which it sells in bulk to distributing authorities (mainly local government bodies) throughout a large part of the State, to the government railways, and to certain large industrial consumers. As the major generating authority, it is also responsible for the development of new power sources except the Snowy Mountains region.

(ii) *Other Electricity Supply Authorities.* The retail sale of electricity to the public is, in general, carried out by separate electricity supply authorities—municipal and shire councils, electricity county councils (consisting of groups of shire and/or municipal councils), or private franchise holders. At 30th June, 1962, there were 57 supply authorities throughout the State, of which 16 also generated part or all of their power requirements. Most of the small power stations which had operated in many country centres have closed down as the main transmission network has been extended.

Over the past few years, there has been a distinct trend towards the consolidation of supply areas, many of which have been individually too weak to form satisfactory areas for distribution. Generally, these consolidations have taken the form of a county district consisting of a number of neighbouring shire and municipal areas grouped only for electricity supply purposes, and administered by a county council of representatives elected by the constituent councils. Of the 225 cities, municipalities and shires in New South Wales, 215 are included in one or other of the 36 electricity county districts. The majority of these county districts have been constituted since 1945. The largest of the county councils is the Sydney County Council, which at 30th June, 1962, was supplying 494,698 consumers in the Sydney Metropolitan Area.

(iii) *The Electricity Authority of New South Wales.* The Electricity Authority was constituted for the purpose of promoting and regulating the co-ordination, development, expansion, extension and improvement of electricity supply throughout the State. A regulatory body, it consists of seven members of whom one is a full-time Chairman. Like the Electricity Commission, it is responsible to the Minister for Local Government.

The following are the main functions of the Authority.

*Distribution.* The approval of the Authority is required for the establishment or acquisition of an electricity trading undertaking by a local government council, for the granting or renewing by such a council of electricity franchise agreements or corresponding agreements with other councils, and for the giving or taking of bulk supplies of electricity. It also has power to formulate proposals for the establishment of county councils.

In exercising these powers, the Authority is mainly concerned with seeing that distributing authorities are sufficiently strong to provide an economical, efficient and satisfactory service. Its most important activities in this regard are in investigating supply areas and in making recommendations to the Minister for the consolidation of such areas into county districts.

*Rural Electrification.* The Authority administers the rural electricity subsidy scheme under which rural electrification throughout the State is progressing very rapidly (see para. 4, p. 253).

*Safety.* The *Electricity Development Act, 1945–1957*, contains provisions for the making of regulations relating to most aspects of safety, and these powers are being used more and more extensively. Safety regulations now in force cover such matters as inspection of consumer's installations, licensing of electricians and electrical contractors, approval of electrical appliances, safety of linesmen and overhead line construction.

*Generation and Transmission.* The approval of the Authority is required for the establishment or extension of power stations and main transmission lines (with the exception of those of the Electricity Commission).

3. **Generation and Transmission.**—(i) *General.* Except in the Snowy Mountains district and in one or two other areas, New South Wales is lacking in major water power potential, and for the generation of electricity the State is dependent mainly on steam power

stations. During the year ended 30th June, 1962, coal-fired stations generated 91.8 per cent. of the State's energy requirements, hydro-electric stations 7.6 per cent. and internal combustion plants 0.6 per cent. In addition, 349,295 million kWh were purchased from the Snowy Mountains Hydro-Electric Authority during the year ended.

The proportion of power generated in the hydro-electric stations will increase considerably with the future plant development of the Snowy Mountains scheme, but at no stage of its development will the scheme supply more than 15 per cent. of the State's energy requirements. Coal-fired steam power stations, therefore, will continue to supply the greater part of requirements for the foreseeable future.

(ii) *Major Generating Stations.* In New South Wales, the generation of electricity has followed the general world trend towards large centralized power stations supplying large areas through inter-connected transmission networks. Whereas until a few years ago the greater part of the coal-fired generating plant was located in the industrial areas of Sydney, Newcastle and Wollongong, where most of the population is also located, major power stations are now being located on the coalfields to the north, south and west of Sydney, and power is transmitted to the load centres through high voltage transmission lines.

At 30th June, 1962, the major power stations of the State system of the Electricity Commission of New South Wales and their installed capacities were as follows:—*Steam*—Bunnerong "A" and "B" (Sydney), 375,000 kW; Wangi (Lake Macquarie), 330,000 kW; Tallawarra (Lake Illawarra), 320,000 kW; Pyrmont (Sydney), 200,000 kW; Wallerawang (near Lithgow), 240,000 kW; White Bay (Sydney), 172,000 kW; Balmain (Sydney), 107,000 kW; Ultimo (Sydney), 80,000 kW; Port Kembla, 60,500 kW; Zarra Street (Newcastle), 45,000 kW; Muswellbrook, 30,000 kW; Lithgow, 27,000 kW; Tamworth, 27,000 kW; Maitland, 20,000 kW; Penrith, 20,000 kW; Liverpool, 20,000 kW; *Hydro*—Hume (near Albury), 50,000 kW; Warragamba (near Penrith), 50,000 kW; Burrinjuck (near Yass), 20,000 kW. There were also various other steam, hydro and internal combustion stations aggregating 34,470 kW. The total installed capacity of the Electricity Commission's system was 2,227,970 kW.

The greater part of the Commission's generating plant is concentrated within a hundred mile radius of Sydney—the largest stations outside this area being located at Hume, Muswellbrook and Tamworth.

(iii) *Major Transmission Network.* The retailing of electricity to 97 per cent. of the population of New South Wales is in the hands of local distributing authorities, which obtain electricity in bulk from the Commission's major State network. This network of 330 kV, 132 kV, 66 kV and some 33 kV and 22 kV transmission lines links the Commission's power stations with the load centres throughout the eastern portions of the State, extending geographically up to 400 miles inland.

At 30th June, 1962, there were in service 518 route miles of 330 kV (including 269 miles operating for the time being at 132 kV) and 1,477 miles of 132 kV transmission lines (including 258 miles operating for the time being at 66 kV or lower). There were also in service 2,372 miles of transmission line of 66 kV and lower voltages.

Superimposed upon the 132 and 66 kV network will be a powerful 330 kV trunk system extending from the Snowy Mountains Hydro-electric Scheme in the south through Wollongong, Sydney and Newcastle to Armidale in the north. At 30th June, 1962, the transmission at 330 kV was in operation between the Snowy Mountains Upper Tumut Switching Station and the Commission's Sydney South 330 kV Transmission Centre, conveying power from the Snowy Mountains Scheme to the Commission's State network, and interconnecting the systems of the Electricity Commission of New South Wales and the State Electricity Commission of Victoria at the Upper Tumut Switching Station.

The installed transformer capacity at the Commission's 97 sub-stations was 5,134,050 kVA.

(iv) *Separate Systems and Total State Installed Capacity.* A number of small plants which supply isolated towns and villages have not yet been interconnected with the main network.

Some local government bodies have undertaken the development of independent power stations. Of these, the more important are:—the Northern Rivers County Council, which has constructed a steam power station at Koolkhan (near Grafton) with an installed capacity of 28,750 kW, and the North-West County Council, which has established a 12,500 kW steam power station on the Ashford coalfield.

The aggregate installed capacity for the whole of the New South Wales systems and isolated plants was 2,328,887 kW at 30th June, 1962.

(v) *Future Development.* The major new thermal stations already built and those now being developed on the coalfields will become the main base load centres for the northern, southern and western regions. Wangi, on Lake Macquarie, Wallerawang, near Lithgow and Tallawarra, on Lake Illawarra, have been completed, the latter including two 100,000 kW generating units which are the largest in operation in the State.

At Vales Point, on Lake Macquarie, work is in progress on a large thermal station with an initial capacity of 875,000 kW. The first stage will comprise two 200,000 kW units and the second stage one 200,000 kW and one 275,000 kW unit.

The site of a further major station, to be called Munmorah power station, has been selected between Lakes Munmorah and Budgewoi (on the central coast), and contracts have been let for the first stage of construction comprising two 350,000 kW generating units.

The development of the 330 kV main system is expected to be rapid in the next few years. The 330 kV line from the Snowy region to Sydney, via the 330 kV centre at Yass and a new one being built at Dapto, is being duplicated. Work has also begun on two new lines from Sydney South to a new substation just north of Sydney, and a further link from there to the new power station at Vales Point ready for the operation of that station in 1963.

New construction of 132 kV and 66 kV transmission lines will extend the system within the next two or three years to South Grafton in the north, to Hay and to Moulamein in the west and south-west, and subsequently to Moruya on the South Coast. Plans to augment the transmission system during the next five years provide for the construction of 850 route miles of 330 kV lines and six associated substations, 800 route miles of 132 kV line and 25 substations, as well as additions to existing substations and a number of lower voltage works.

(vi) *Hydro-electricity.* The greater part of the hydro-electric potential of New South Wales is concentrated in the Snowy Mountains Area (*see* Snowy Mountains Hydro-electric Scheme, p. 248). Apart from this area, there are in operation the new hydro-electric stations at the Warragamba Dam (50,000 kW) and Hume Dam (50,000 kW), and stations at the Burrinjuck Dam (20,000 kW), Wyangala Dam (7,500 kW) (shortly to be closed during repairs and extensions to the dam), and Keepit Dam (6,000 kW). The output of Warragamba Power Station depends upon the availability of water surplus to the requirements of the Sydney Metropolitan Area, and the output of the other stations on the release of water for irrigation.

Of the remaining hydro installations, the largest is that of the New England County Council on the Oakey River, a tributary of the Macleay River, which has a capacity of 5,250 kW.

The Northern Rivers County Council operates a hydro-electric power station on the Nymboida River, a tributary of the Clarence River. This station has a capacity of 4,500 kW.

The Bega Valley County Council has constructed a hydro-electric scheme at Brown Mountain utilizing the headwaters of the Bemboka River. This installation has a capacity of 3,950 kW.

The Mullumbimby Municipal Council has in operation two 150 kW hydro units on Wilson's Creek, a tributary of the Richmond River.

4. *Rural Electrification.*—When the Electricity Authority of New South Wales was constituted in 1946, only 16,000 New South Wales farms were being served with electricity—less than one-quarter of those within reasonable reach of public electricity supply systems. Under a subsidy scheme approved in August, 1946, local electricity suppliers receive subsidies from the Electricity Authority towards the cost of new rural lines. The amount of subsidy is based on the estimated cost of the proposed extension and the number of consumers able to be served by the new lines, and the scheme was designed to encourage local electricity supply authorities to construct the more economic extensions first by fixing a limit to the cost for which suppliers could be subsidized. Originally this limit was £250 per consumer when averaged over the cost of the whole extension, but the limit was raised to £400 in December, 1953. Some subsidy was paid on higher cost extensions, but the excess over an average of £400 was not subsidized.



To assist supply authorities in extending supply to less populated, and thus high-cost, areas of the State, the subsidy scheme was extended from May, 1959, to provide for payment of increased subsidy in respect of extensions where the average capital cost per consumer lies within the range of £600-£800.

Between August, 1946, and June, 1962, about 42,754 miles of new distribution lines in rural areas were erected at a cost of over £29,000,000. These lines served 51,270 farms and 31,292 other rural consumers. At 30th June, 1962, the Electricity Authority was committed to the payment of £12,689,763 in subsidies, of which £6,137,270 had been paid.

## § 2. Victoria

1. *General*.—In Official Year Book No. 39, a detailed description is given of the development of electricity generation in the cities of Melbourne, Geelong, Bendigo and Ballarat up to the time of transfer of control of electricity undertakings in those cities to the State Electricity Commission of Victoria. An account is also given of the events culminating in the establishment of the Commission in 1919, and of the early developments in the Commission's undertakings.

2. *State Electricity Commission of Victoria*.—(i) *Power and Fuel Authority*. Since it began operating in 1919, the State Electricity Commission has expanded and co-ordinated the production and supply of electricity on a State-wide basis to the point where its system now generates almost all the electricity produced in Victoria and serves about 97 per cent. of the population through a supply network covering more than three-quarters of the populated area of the State.

Development of Victoria's electricity system is based on the utilization for both power and fuel of Victoria's extensive brown coal resources in the Latrobe Valley in eastern Gippsland, with supplementary development of the hydro-electric potential of north-eastern Victoria. Victoria is entitled to one-third of the electricity from the Snowy Mountains Hydro-electric Scheme, after the Commonwealth has taken the power it needs for its purposes. Output from the Snowy scheme was made available to Victoria in the latter half of 1959. Victoria also shares with New South Wales in the electricity generated at Hume Hydro Station on the River Murray. Over 80 per cent. of the State's electricity is generated from brown coal, either used in its raw state or manufactured into higher quality fuel in the form of brown coal briquettes. All the brown coal and briquette fuel is supplied by undertakings which the Commission itself owns and operates. Output of brown coal in 1961-62 from the three open cuts at Yallourn, Yallourn North and Morwell totalled 16,241,414 tons, of which 10,981,172 tons were used in the Commission's own power stations, and 4,861,632 tons were manufactured into 1,819,937 tons of brown coal briquettes, 52 per cent. of the briquette output then being used for electricity production in metropolitan and provincial steam power stations.

The two functions, generation of electricity and production of fuel, are closely integrated. Apart from the large proportion of brown coal and briquette fuel consumed in the power stations, the process of briquette manufacture results also in large-scale generation of electricity, since the steam needed for processing the raw coal for briquetting is first used to operate turbo-generators.

(ii) *Status and Powers*. Constituted by Act of the Victorian Parliament, the State Electricity Commission is a semi-governmental authority administered since 1921 by a full-time Chairman and three part-time Commissioners. The principal duty of the Commission is to co-ordinate and extend on an economic basis the supply of electricity throughout Victoria. For this purpose, it is vested with power to erect, own, and operate power stations and other electrical plant and installations, supply electricity retail to individual consumers or in bulk to any corporation or public institution, acquire and operate electricity undertakings, develop, own, and operate brown coal open cuts and briquetting works, and develop the State's hydro-electric resources. From its own revenues, which it controls, the Commission must meet all expenditure in the operation of its power, fuel and subsidiary undertakings, and all interest and other charges incurred in the service of its loans and other capital commitments.

The Commission is the controlling authority for all electrical undertakings in Victoria. It is responsible for the registration of electrical contractors, the licensing of electrical mechanics, the control of installation methods and material and the testing and approval of electrical equipment and appliances. Incidental to its main operations, the Commission owns and operates the tramway systems in Ballarat and Bendigo. For the accommodation of its employees at Yallourn, the Commission owns and administers the town of Yallourn.

It also owns large housing estates in the surrounding area, but is progressively selling houses in these estates to Commission employees. In the Kiewa hydro-electric works area, it has built the two townships of Mount Beauty and Bogong, municipal administration of the former now being vested in the Shire of Bright. With construction at Kiewa now complete, many houses at Mount Beauty have been sold for holiday homes.

(iii) *Electricity Supply.* At 30th June, 1962, consumers in Victoria served by the State system numbered 941,433. Outside the State system, there were 15,052 other consumers served by local country undertakings. The system supplies all the Melbourne metropolitan area and over 1,700 other centres of population.

The Commission sells electricity retail in all areas except part of the metropolitan area, where it sells in bulk to eleven municipal undertakings which operate as local retail supply authorities under franchises granted before the Commission was established. Bulk supply is also being provided at present to several New South Wales municipalities and irrigation settlements bordering the River Murray. Rural electrification is now more than 95 per cent. completed, the plan to extend the State system to all populated regions of Victoria having made rapid progress during recent years. The number of consumers served by the State system outside the Melbourne metropolitan area is 411,421, and the number of farms connected to supply 49,506. Of the new consumers connected to supply each year, more than two-thirds are outside the metropolitan area. New farm connexions average nearly 3,000 a year.

The Commission's retail consumers numbered 743,234 at 30th June, 1962. Retail supply is administered through the metropolitan branch, seven extra-metropolitan branches (Ballarat, Eastern Metropolitan, Geelong, Gippsland, Midland, North Eastern and South Western) and the North Western Region, which comprises the Northern branch (based on Bendigo) and the two sub-branches based on Mildura and Horsham (Wimmera). At 30th June, 1962, there were branch and district supply offices in 86 towns in Victoria.

(iv) *Electricity Production.* Electricity generated in the State system or purchased by it totalled 6,853 million kWh in 1961-62 or 99 per cent. of all Victoria's electricity. The system comprises a series of thermal and hydro-electric power stations. Inclusive of generator capacity both within the State and available to the Victorian system from outside the State, the total installed generator capacity at 30th June, 1962, was 1,879,000 kW. Power stations are interconnected, and feed electricity into a common pool for general supply. The major power station in this interconnected system is the brown coal burning power station at Yallourn, which alone generates more than half of Victoria's electricity. Other power stations in the interconnected system comprise the important brown coal burning power station at Morwell; steam stations in Melbourne (Newport, Richmond and Spencer Street), Geelong and Ballarat; hydro-electric stations at Kiewa; at Eildon; on the Rubicon and Royston Rivers, near Eildon; and at Cairn Curran; and internal combustion stations at Shepparton and Warrnambool. All within Victoria are commission-owned, except Spencer Street Power Station, which remains the property of the Melbourne City Council, although operated as a unit in the interconnected system. A 330,000-volt transmission line links the Victorian system with the Snowy Mountains undertaking, and also provides facilities for interconnexion between the Victorian and New South Wales State generating systems. Also linked with the Victorian interconnected system is the hydro station at Hume Dam on the River Murray. This power station is operated by the Electricity Commission of New South Wales. Output and operating costs are shared by Victoria and New South Wales.

In meeting the total demand on the system, which fluctuates throughout the day and from month to month, each group of stations in the interconnected system is assigned a predetermined function dependent upon the availability of power from each group and the economics of generation. The various stations are utilized in the combination that will meet the system load most economically at a given time.

Commission power stations not connected with the rest of the State system at 30th June, 1962, comprised the two steam stations (Redcliffs and Mildura) serving the Mildura region. This region was scheduled to be interconnected with the rest of the State system in the latter half of 1962.

(v) *Transmission and Distribution.* The electrical transmission and distribution system in the State supply network at 30th June, 1962 comprised 36,949 miles of power-lines, 17 terminal receiving stations, 5 switching stations, 74 main sub-stations and over 30,000 distribution sub-stations. Main transmission is by 220 kV, 132 kV and 66 kV power lines which supply the principal distribution centres and also provide interconnexion between the

power stations. The 330 kV line connecting the Victorian system with the Snowy Mountains Scheme and the New South Wales transmission system via Dederang, near Kiwara, came into service in November, 1959. The 220 kV system now totals 983 miles.

(vi) *Future Development.* Major new construction is concentrated on the erection of a large new brown coal burning power station (Hazelwood) near Morwell in the brown coal fields of the Latrobe Valley. At the same time, the Commission continues its programme of rural electrification and extension and reinforcement of the State system (particularly in western and north-western Victoria).

Yallourn Power Station has been greatly enlarged, and an extension of 240,000 kW capacity was completed in 1962. At Morwell, six miles from Yallourn, the Commission has almost completed a second brown coal power and briquette undertaking. The new undertaking comprises a brown coal open cut and power station operating in association with a briquetting plant. Some of the electricity generated at Morwell is needed to operate the briquette works, but most of the output of the power station is transmitted through Yallourn to metropolitan terminal stations for general supply through the State network. The power station began operation at the end of 1958. Installed generator capacity, now 110,000 kW, will be increased to an ultimate capacity of 170,000 kW on completion of the power station by the end of 1962. Commercial production of briquettes began in December, 1959. The briquette works (completed in September, 1960) have a production capacity of approximately 1,300,000 tons of briquettes a year. The Commission's new Hazelwood Power Station is being erected a short distance south of Morwell. It will operate on raw brown coal fuel supplied by belt conveyor direct from the Morwell open cut. The power station will have a capacity of 1,200,000 kW and will comprise six turbo-generators each of 200,000 kW capacity. Hazelwood is being built in stages. Contracts have been placed for four generating units (800,000 kW) and the related boiler plant, and site work is in progress on the first 400,000 kW stage. The first turbo-generator is due to be in service in 1964 and the second in 1965. Succeeding units are scheduled to be in service in 1967, 1968, 1970 and 1971. Power generated at Hazelwood Power Station will be transmitted at high voltage to Melbourne metropolitan terminal stations for distribution through the State supply network.

3. *Local Country Electricity Undertakings.*—At 30th June, 1962, there were 26 independent electricity undertakings in country centres in Victoria generating and distributing their own local supply. Most of these undertakings were in the far south-west, west and north-west of the State. Under the State Electricity Commission's rural electrification programme, almost all the independent local country undertakings will ultimately be acquired and absorbed into the State system. For the year 1961–62, the total production of the independent undertakings was 40 million kWh. The number of consumers at 30th June, 1962, was 15,052. The operation of the independent undertakings is governed by the *Electric Light and Power Act*, 1958, which the State Electricity Commission administers.

### § 3. Queensland

1. *General.*—In Official Year Book No. 39, an account is given of the growth of electricity generation in Queensland, with particular reference to the City Electric Light Co. Ltd. of Brisbane (now the Southern Electric Authority of Queensland), the Brisbane City Council and the Toowoomba Electric Light and Power Co. Ltd. (taken over by the Southern Electric Authority) (see para. 3).

The generation and distribution of electric power in Queensland in earlier years had tended to lag behind developments in this field in other States of Australia, and in 1935, the Queensland Government, being concerned with the need to develop the State's power resources in the public interest, appointed a Royal Commission to inquire into and make recommendations on matters relating to the generation and distribution of electric power in Queensland. (An account of the results of its investigations and of the alternative proposals put before it will be found on page 1182 of Official Year Book No. 39.) The Commission recommended that a commission to control the generation and distribution of electric power be vested in the State; but if the establishment of an operating commission was not found practicable, then electrification under public control with ultimate public ownership should be implemented by means of a controlling commission capable of being converted into an operating commission. In 1937, the State Government constituted the State Electricity Commission of Queensland.

2. **The State Electricity Commission of Queensland.**—The State Electricity Commission of Queensland commenced to function during January, 1938, its main powers being to secure a proper and efficient supply of electric power, review tariffs, grant licences to supply electricity, secure the safety of the public, and control and advise electrical undertakings generally. It was thus a controlling authority as distinct from an operating authority. Details of its growth and development may be found in earlier issues of the Official Year Book (see No. 44, p. 284). Since its inception, the Commission has made considerable progress in its task of developing the State's power resources and promoting a more widespread use of electric power. The degree of utilization of electrical energy in Queensland now compares favourably with other States in the Commonwealth.

3. **The Southern Electric Authority of Queensland.**—A further major step in electrical progress was taken by the passing of the *Southern Electric Authority of Queensland Act* of 1952. This Act constituted the City Electric Light Co. Ltd. as a public authority to be known as the Southern Electric Authority of Queensland. Two government representatives are included on the board of the Authority, whose establishment prepares the way for the complete amalgamation, in due course, of the electrical undertakings serving the south-eastern Queensland area of supply.

As from 1st July, 1954, the Southern Electric Authority acquired the Toowoomba Electric Light and Power Co. Ltd., thus bringing that company's area of supply under its control. The Southern Electric Authority is now responsible for the electrical supply and development of a consolidated area of over 17,000 square miles and is also providing bulk supply to the Western Downs area centred on Dalby. The Authority also supplies the Tweed area of northern New South Wales.

The Southern Electric Authority supplies the requirements of the inner portion of the City of Brisbane and those of a considerable rural area in the south-eastern corner of the State from modern power stations at Bulimba, a suburb of Brisbane, and a "packaged plant" at Abermain (near Ipswich). The output from a 3,200 kW hydro-electric unit installed at Somerset Dam near Brisbane is also fed into the Southern Electric Authority system. With these plants, 941 million kWh were generated in 1960–61 and 991 million kWh in 1961–62, while the total number of the Authority's consumers at 30th June, 1961, was 129,399 and at 30th June, 1962, 133,243.

4. **The Brisbane City Council.**—The Brisbane City Council's electrical undertaking comprises power stations at New Farm and Tennyson (with a "packaged plant" also installed at the latter locality) and supplies suburban Brisbane. Units purchased and generated amounted to 781 million kWh in 1960–61 and 838 million kWh in 1961–62, and there were 143,627 consumers connected at 30th June, 1961 and 148,911 at 30th June, 1962.

5. **Regional Electricity Boards.**—With a view to facilitating the control and development of electricity supply in areas of low population density and those having a predominantly primary producing economy, the Government, in 1945, passed the *Regional Electric Authorities Act* providing for the creation of regions of electricity supply and the constitution of regional electricity boards. Prior to the establishment of these boards, no attempt had been made to unify or co-ordinate electricity supplies outside south-eastern Queensland, and rural electrification, apart from reticulation within certain townships, was practically unknown.

Soon after passage of the Act, four regional boards were constituted, Wide Bay, Capricornia, Townsville and Cairns. A fifth board, South Burnett, became an operating authority in October, 1947, but on 1st July, 1951, was absorbed in the Wide Bay Regional board, and this organization is now known as the Wide Bay-Burnett Regional Electricity Board. As from 1st March, 1957, a further regional board became operative, covering the areas of Mackay, Sarina, Proserpine and adjacent rural areas under the name of Mackay Regional Electricity Board. Supply throughout this region is provided from the central generating station at Mackay, and accelerated electrical development of this area is being undertaken.

The Townsville Regional Electricity Board's area was extended in July, 1957, to include that of the Bowen Electricity Undertaking, in October, 1959, to include the Hughenden Electricity Undertaking, and in September, 1960, to include the Collinsville Electricity Undertaking. The local authority areas of Thursday Island and Cook were included in the Cairns Regional Electricity Board's area from 1st July, 1956, and 1st July, 1957, respectively, and the Normanton Undertaking was transferred to this Board on 1st January, 1962. As from 1st January, 1958, the Capricornia Region was extended to include the Shires of Bauhinia, Belyando, Emerald and Peak Downs in central-west Queensland.

Activities of the five Regional Boards in 1960-61 and 1961-62 compared with operations of the stations located in regions in 1945-46 are shown in the following table.

### QUEENSLAND: REGIONAL OPERATIONS

Region	1945-46		1960-61		1961-62	
	Units generated	No. of consumers	Units generated	No. of consumers	Units generated	No. of consumers
	Million kWh		Million kWh		Million kWh	
Wide Bay-Burnett ..	13.7	11,467	102.9	33,199	109.3	34,769
Capricornia ..	19.5	11,196	159.4	24,355	175.7	25,342
Townsville ..	25.8	11,612	(a) 53.1	30,338	(a) 98.0	31,334
Cairns ..	22.7	9,722	276.5	23,686	257.7	24,650
Mackay ..	6.5	4,283	40.9	12,203	44.1	13,353
<b>Total ..</b>	<b>88.2</b>	<b>48,280</b>	<b>632.8</b>	<b>123,781</b>	<b>684.8</b>	<b>129,448</b>

(a) Excludes 131.4 m.kWh purchased from Tully Falls Power Station in 1960-61 and 99.5 m.kWh in 1961-62.

Installed generator capacity of the five regional boards at 30th June, 1962, was:—Wide Bay-Burnett, 37,500 kW; Capricornia, 54,088 kW; Townsville, 41,725 kW; Mackay, 15,250 kW; Cairns, 86,875; total, 235,438 kW.

6. **Hydro-electricity.**—Behind the coastal plain of the Cairns-Ingham area is an extensive plateau with elevation ranging from 2,000 to 3,000 feet, although isolated peaks exceed 4,000 feet. The short coastal streams which rise on the plateau descend rapidly into deep gorges, which they have cut through the divide. With heavy monsoonal rainfall on their catchments and concentrated fall, these streams represent a considerable potential source of power, but storage, which can be provided in most cases, is essential to control the very variable flow.

There is a pronounced wet season from December to March, with a dry season from July to November. Average annual rainfall varies greatly with location, being 178 inches at Deeral (midway between Cairns and Innisfail), but only 34 inches at Cashmere (120 miles south-west of Innisfail).

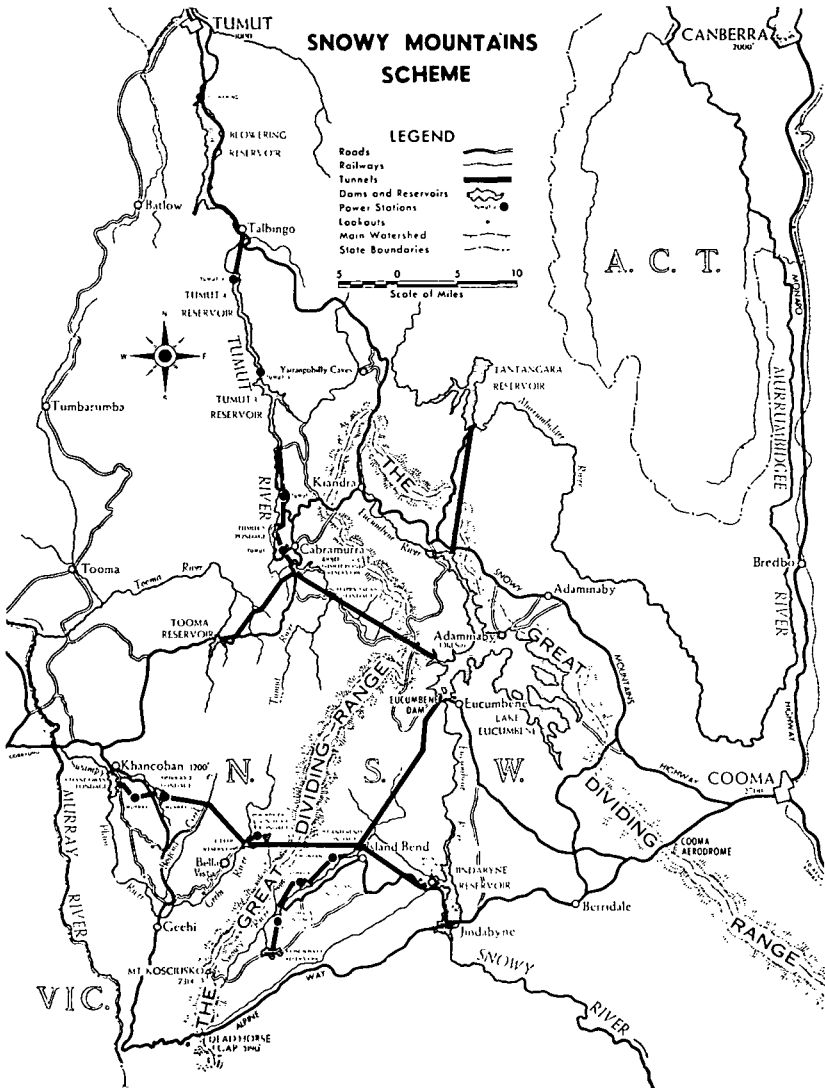
In 1935, a small hydro-electric power station was placed in service at Barron Falls, ten miles north-west of Cairns. The station comprises three 2,000 h.p. turbines, each driving a 1,320 kW generator, with a hydraulic head of 410 feet. An output of 34 million kWh was attained during 1961-62, the station operating essentially as a run-of-river station, without any significant water storage capacity being available. Power is fed at 22 kV into the main network at Mareeba and Cairns.

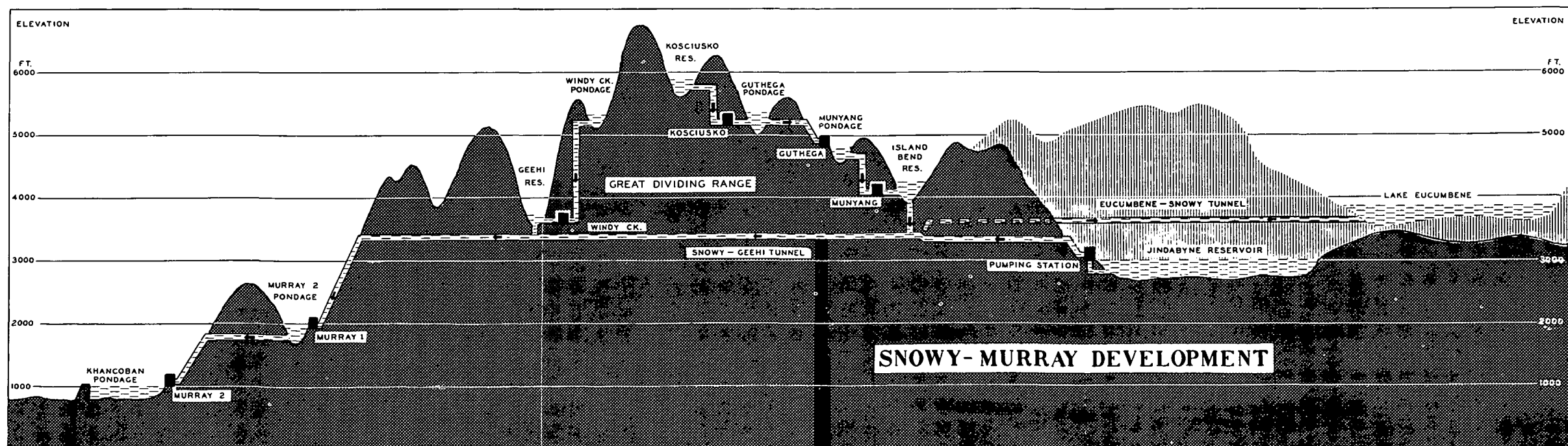
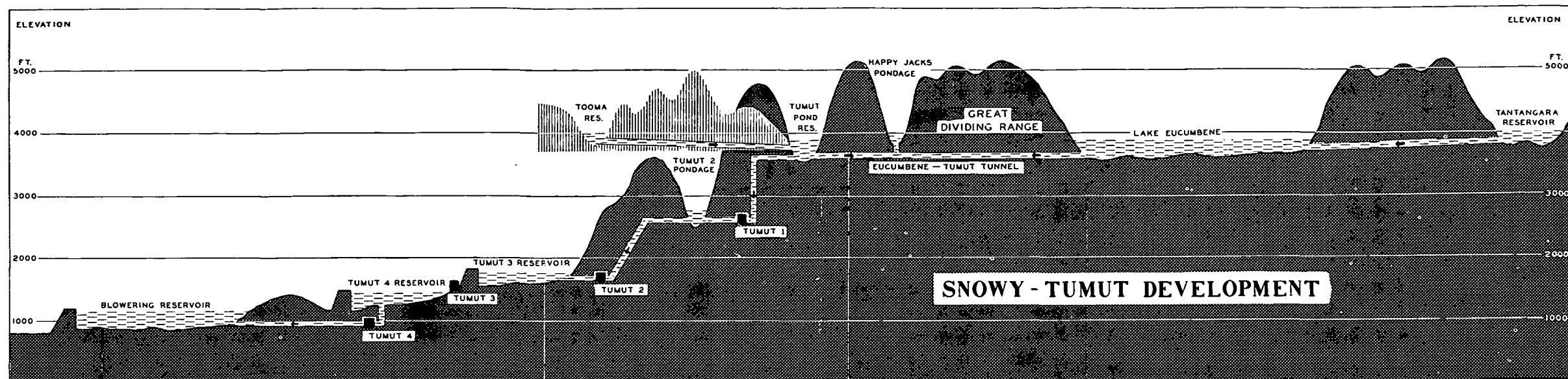
The hydro-electric power scheme at Tully Falls was commissioned in September, 1957, with an initial plant installation of 36,000 kW. Work was completed during 1958-59 on the installation of a further two 18,000 kW sets, making a total installation of 72,000 kW. An output of 222 million kWh was obtained from this station during 1961-62. Power is transmitted to the load centres at Cairns and Innisfail by means of 132 kV transmission lines. Further extensions of the Tully Scheme may be undertaken at a later date. Inter-connexion of the Tully Scheme with the Townsville area, which is also being served by a thermal station, was completed in February, 1958, by the provision of a 160 mile double circuit 132 kV transmission line.

A new peak load power station is under construction at Barron Falls to provide a firm (dry year) output of 60,000 kW at 25 per cent. load factor (i.e. firm output of 131 million kWh per annum). This scheme, when commissioned in 1963, will ensure an adequate supply of power to the Cairns and Townsville areas until 1967. The completed scheme will provide for an underground power station below the Barron Falls containing two 30,000 kW Francis turbines, operating under a head of 920 feet.



Eucumbene Dam and Lake Eucumbene, the main water storage of the Snowy Mountains Scheme.









Other major schemes which have been or are currently being investigated include North Johnstone-Russell Rivers (32,000 kW); Beatrice-North Johnstone Rivers (9,000 kW); South Johnstone River (25,000 kW); Herbert River (90,000 kW); Burdekin River (80,000 kW); and Broken River.

The State Electricity Commission, in conjunction with other government departments, is constantly reviewing the development of hydro-electric resources. It is estimated that full development of the hydro-electric potential of north Queensland would provide the equivalent of over 300,000 kW of power at 50 per cent. load factor or approximately 1,300 million kWh a year.

**7. Generating Capacity.**—(i) *Regions.* Within the areas administered by the regional electricity boards development extending over a considerable period may be divided into two stages. The first stage, which is now virtually completed, saw the construction of central power stations at the principal load centres, and of transmission system, taking supply to smaller centres, thus superseding local generation. The second stage provides for the interconnexion of regional transmission systems to take advantage of lower production costs at the larger power stations. At the same time, it is becoming more economic to locate power stations on coalfields rather than at load centres. The selection of the Callide coalfield as the site for the next major generating station in central Queensland and the consideration being given to the Collinsville coalfield in North Queensland are illustrative of this fact.

As part of the first stage, the following new generating stations were commissioned:—Howard (Wide Bay-Burnett Region) which has an installed capacity of 37,500 kW, Rockhampton (Capricornia Region) with 52,500 kW, and Townsville (Townsville Region) which contains 37,500 kW of plant. In the Cairns Region, the Tully Falls Hydro-electric Power Station has been completed with 72,000 kW installed capacity.

The Tully Falls Scheme (*see* para. 6, p. 258) was planned to supply power to the Cairns and to the Townsville Regional Electricity Board systems. Work is well advanced on the construction of a further hydro-electric scheme on the Barron River which should be completed by June, 1963, and will add 60,000 kW of hydro-electric generation capacity to these interconnected regional systems. The first stage of the scheme's development is estimated to cost £5,850,000, and initially, full use will be made of available storage capacity at Tinaroo Falls Dam, thus enabling construction of a £5,000,000 storage dam on Flaggy Creek to be postponed for a number of years.

At Mackay, where supply was first given in 1924, a Regional Electricity Board has now been constituted, and the generating capacity of the station under the control of this Regional Board is 12,500 kW of steam plant and 3,000 kW of diesel plant. To supplement this output a 66 kV transmission line from the Townsville Region is being erected. On completion of this line, the three North Queensland regions of Cairns, Townsville and Mackay will form an interconnected system with integrated generation facilities, based mainly on hydro-electric generation.

To serve the needs of the Capricornia region the construction of a power station capable of being developed to 150 MW capacity has commenced at a site on the Callide coalfields. Transmission to the main load centres will be at 132 kV.

(ii) *Western Queensland.* In western Queensland, where a number of small isolated generating stations supply power to some of the larger towns, the Commission evolved a plan to increase and modernize existing capacity. It involved installation of small internal combustion units ranging in size from 100 kW to 600 kW according to the load likely to be experienced, and conversion from direct to alternating current supply. The Government has assisted the scheme by subsidy—a feature of electrical development in Queensland. Assistance provided for regional electrical development comprises subsidies of up to one-third of capital cost on annual loan charges, with special subsidies of up to 50 per cent. for authorities in the larger towns outside the regions.

In addition to improving supplies to the larger western towns, a scheme was devised for electricity supplies for smaller towns in the western districts, where consumers range from 50 to 200. Subsidies of 65 and 60 per cent. are granted if the number of consumers supplied is less than 100 and 200, respectively. At 30th June, 1962, 24 townships in western Queensland were provided with electricity supplied by small oil-driven generating sets with automatic controls which can be run with a minimum of operating attendance. In addition, investigations of the possibility of supply have been carried out at a number of other small centres.

Coal-burning gas producers have been successfully commissioned for public electricity supply purposes at Longreach, Clermont, Blackall and Barcaldine, and further extension of their use in western Queensland is predicted, as lower tariffs and more efficient production of electricity is expected to follow their use.

In a limited number of cases, transmitted supply from larger generating centres has replaced local generation in small townships, and in southern border areas, transmitted supply is provided from New South Wales to certain townships and rural areas.

All electricity undertakings in western Queensland are operated by local authorities.

(iii) *South-eastern Queensland.* The two major generating authorities of south-eastern Queensland, the Brisbane City Council and the Southern Electric Authority, at 30th June, 1962, had a combined installed capacity of 517,500 kW. The Brisbane City Council's plant consisted of 75,000 kW at New Farm and 190,000 kW at Tennyson, including a 10,000 kW "packaged" generating plant. Current plans include the installation of a further 60,000 kW at Tennyson by 1964. The plant of the Southern Electric Authority consists of 92,500 kW at Bulimba "A", 150,000 kW at Bulimba "B" and a 10,000 kW "packaged" plant at Abermain near Ipswich. It is proposed to augment the Bulimba "B" station by 30,000 kW by 1965.

Negotiations are at present in hand for the constitution of a single authority to control all generation, main transmission and rural distribution in south-eastern Queensland and for another authority to be responsible for metropolitan distribution.

To cater for the power needs of this portion of the State after the completion of existing stations, work has commenced on a new power station at Swanbank, on the West Moreton coalfields, with an ultimate capacity of 360,000 kW.

Power from this station will also be transmitted to the Wide Bay-Burnett region at 132 kV, which will obviate the installation of additional plant within this region.

#### § 4. South Australia

1. *General.*—An account of the companies generating electric power in South Australia prior to the establishment of the Adelaide Electric Supply Co. Ltd., and describing the development of that company's activities, was given in Official Year Book No. 39. Also included in the account was some reference to the early measures of public control over electricity supply in South Australia and the extent to which they were applied, and also to the inquiries into the activities of the Adelaide Electric Supply Co. Ltd. in 1932 and 1935.

Following an inquiry instituted by the Government in 1943, relative to measures for increasing electricity supply to the metropolitan area and country districts, the *Electricity Act* 1943 was passed, which, *inter alia*, established the South Australian Electricity Commission.

2. *The Electricity Trust of South Australia.*—Early in 1946 the assets of the Adelaide Electric Supply Co. Ltd. were transferred to a newly formed public authority, the Electricity Trust of South Australia, which became responsible for unification and co-ordination of the major portion of the State's electricity supply and which took over the powers previously vested in the South Australian Electricity Commission. In addition to the powers specified in the *Adelaide Electric Supply Company's Acts* 1897–1931, the Trust may supply electricity direct to consumers within a district or municipality with the approval of the local authority, and by agreement with other organizations which generate or supply electricity, arrange to inter-connect the mains of the Trust with those of other organizations, and give or receive supplies of electricity in bulk.

3. *Capacity and Production.*—Three main categories of organizations generate electric power in South Australia, namely:—(a) governmental, which include the Electricity Trust; (b) local authorities, e.g. municipal and district councils, and the Renmark Irrigation Trust; and (c) other, including individuals and firms primarily engaged in generating power for sale, firms generating power primarily for their own use but supplying outside consumers, and firms generating power solely for their own use.

In 1961–62, total installed capacity in South Australia was 587,860 kW, and electricity generated totalled 2,126 million kWh.

Of the total installed capacity, the Electricity Trust of South Australia operated plant with a capacity of 551,000 kW. It is thus the most important authority supplying electricity in the State. There were approximately 321,000 ultimate consumers of electricity in the State, of whom 297,203 were supplied directly by the Trust and approximately 10,000 supplied indirectly by the Trust (i.e. through bulk supply). Its major steam stations were Osborne "A" (64,000 kW), Osborne "B" (180,000 kW), and Port Augusta Playford "A" (90,000 kW) and Playford "B" (180,000 kW), the balance of the capacity controlled consisting of house sets and regional stations at Port Lincoln and Mount Gambier, where the Trust operates steam power stations of 5,000 kW and 21,800 kW capacity respectively, the former burning fuel oil and the latter either wood waste or fuel oil.

No hydro-electric potential exists in South Australia. Steam generating units comprise 98 per cent. of installed capacity and the balance is internal combustion equipment. Until 1946, all fuel consumed in the thermal stations was obtained from sources outside the State, and at times power restrictions were necessary owing to the inadequacy of supplies.

4. **Leigh Creek and other New Capacity.**—With a view to reducing the dependence on external sources of fuel, steps have been taken to produce local coal and to install plant to use it. Fairly extensive deposits of low-grade sub-bituminous coal are obtainable at Leigh Creek, about 360 miles north of Adelaide. Under the *Electricity Trust of South Australia Act Amendment Act 1946*, the Trust was given authority to develop Leigh Creek coal for use in its own undertakings and also for sale to other consumers. Production from the Leigh Creek field commenced in 1944, and in the year ended 30th June, 1962, 1,231,023 tons of coal were produced, practically all of which was used by the electricity undertaking.

In order to cope with the rapidly increasing demand for power, the Electricity Trust is constructing a second power station at Port Augusta, known as Playford "B". This station will have a capacity of 240,000 kW, making the combined capacity at Port Augusta 330,000 kW. The first 60,000 kW turbo-alternator was commissioned in June, 1960, the second in March, 1961, and the third in April, 1962; the station is scheduled for completion about 1964. Leigh Creek coal will be used exclusively. The power station will be interconnected with the metropolitan area by two 275 kV transmission lines.

Consideration is now being given to the future establishment of some pumped-storage hydro plant, as being possibly the most economic way of handling the peak loads of the system.

## § 5. Western Australia

1. **General.**—Electrical undertakings in Perth and Fremantle formerly owned by the Perth City Council, the Western Australian Government Electricity Supply, the Fremantle Municipal Tramways and Electric Lighting Board, and other metropolitan, municipal and road board supply authorities have been taken over by the State Electricity Commission of Western Australia. For information on the early history of electricity supply in the metropolitan area, see *Official Year Book No. 39*, page 1189.

2. **The State Electricity Commission of Western Australia.**—In order to ensure an organized and co-ordinated future growth of electricity generation and distribution throughout the State, the Government passed an Act in 1945 to establish the State Electricity Commission, which, together with the *Electricity Act*, became law early in 1946. Under these Acts, the Commission was given power to secure the ultimate co-ordination of all State or other electrical undertakings in the State, to construct and operate power stations and transmission lines, and to purchase as a going concern and carry on the undertaking of any supply authority. No person or organization is permitted to construct or extend an electricity supply undertaking without consent from the Commission. Local authorities are empowered to operate and construct power stations and other works associated with the supply of electricity, provided that authority is first obtained from the Commission and that their proposals are not inconsistent with the Commission's plans.

3. **General Pattern of Electricity Supply.**—(i) **General.** The State Electricity Commission gives central power station supply to the metropolitan area and an area of approximately 25,000 square miles defined in the report which formed a basis for the *South West Power Scheme Act*. These areas include the more highly developed rural districts with a greater population density, which can more readily be connected to a central power station system.

It was announced recently that a similar scheme to be known as the Northern Areas State Power Scheme will be developed during approximately the next sixteen years to serve towns as far north as Northampton.

In the other areas of the State, towns are supplied by the local authority or by a concessionaire operating under an agreement with the local authority and the Commission. Power stations operated under these conditions are exclusively diesel of varying sizes, with the exception of Kalgoorlie which is separately mentioned below.

(ii) *Interconnected System.* At the request of the Government, the Electricity Advisory Committee, in 1945, submitted a report which recommended, among other things, a national power scheme for the south-west. The plan provided for acquisition of the existing Collie Power Station and installation of additional generating capacity, construction of a power station at Bunbury and inter-connexion of the south-west scheme with the metropolitan system. In 1946, the State Electricity Commission acquired the Collie Power Station, and since then it has acquired a number of electrical undertakings from municipal bodies and private organizations in the south-west area and is proceeding with arrangements for the purchase of others. In August, 1951, the first portion of the South-West Power Scheme was officially opened at Collie, and most of the south-west towns have now been connected by transmission line to the interconnected system.

Statistics relating to activities of the interconnected system are shown in the following table.

WESTERN AUSTRALIA: INTERCONNECTED SYSTEM

Particulars						1960-61	1961-62
Plant capacity	..	..	..	..	kW	288,500	288,500
Maximum load	..	..	..	..	kW	171,000	191,000
Units generated	..	..	..	..	Million kWh	803	866
Fuel used per unit (kWh) generated	..	..	..	..	lb.	1 55	1 54
Coal used	..	..	..	..	tons	398,519	521,978

(iii) *Kalgoorlie.* In Kalgoorlie, a re-organization of electricity supply is taking place. All large mines will generate power for their own needs, and the Power Corporation will cease operations during 1963. Kalgoorlie Town Council will supply Kalgoorlie and Boulder with 50 cycle A.C. from a new diesel station, and the present D.C. diesel stations operated by the local authorities will continue for some time at least.

4. *New Projects.*—Since its inception in 1946, the State Electricity Commission has made the provision of an adequate reserve of generating plant its primary object. With the commissioning of the first unit at South Fremantle Power Station in May, 1951, the lag caused by shortages during the war and early post-war years was overcome. The system then developed rapidly to keep pace with the expansion of industry and housing. Generating plant has been quadrupled in the past sixteen years. The three major power stations have been interconnected with the South West Power Station at Collie enabling the most economical units to be used as a base load station. Continuous development of the transmission and distribution system is being undertaken to keep pace with the growth in consumer demand, at present about 8 per cent. a year.

Work has commenced on two 60,000 kW turbo alternators, boilers and buildings for the first section of a new station at Muja near Collie, adjacent to a source of open-cut coal. The first unit is planned to be in service in the latter part of 1965.

## § 6. Tasmania

1. *General.*—A considerable part of the water catchment in Tasmania is at high level, with a substantial natural storage available, and this has made it possible to produce energy at lower cost than elsewhere in Australia, or in most other countries. Another factor contributing to the low costs is that rainfall is distributed fairly evenly throughout the year,

with comparatively small yearly variations. The cheap power has led to the establishment in Tasmania of several large electro-chemical and metallurgical works with high load factor, and as a consequence the system load factor is also very high (at present 66.8 per cent.).

For information on hydro-electric development in Tasmania prior to the establishment of the Hydro-Electric Commission in 1930, see Official Year Book No. 39, pages 1192-3.

**2. The Hydro-Electric Commission.**—(i) *Present System.* In 1929, the Government passed the *Hydro-Electric Commission Act*, under which was established the Hydro-Electric Commission and which vests in the Commission, with some minor exceptions, the right to use the waters of the State of Tasmania, and authorizes it to develop and reticulate electric power for all purposes. In 1930, this corporate body took over the State hydro-electric undertaking and the business of the Hydro-Electric Department.

The first project undertaken by the Commission was the Shannon Power Development which utilizes 258 feet of the difference in level between the Great Lake (Miena Dam) and Waddamana forebay.

The Tarraleah Power Development was commenced in 1933. In this scheme, the waters of the River Derwent are picked up near Butler's Gorge by a canal and conveyed 14 miles to the pipeline forebay 982 feet above the power station on the Nive River.

The Trevallyn Power Development, the first constructed by the Commission outside the Central Plateau region and commenced in 1949, was undertaken primarily to meet the requirements of the aluminium industry. The waters of the South Esk River are diverted through two miles of tunnel and pipeline to a power station on the Tamar River near Launceston.

The Tungatinah Scheme, on which construction started in 1948, draws water from three separate catchment areas located on the Central Plateau between the Great Lake (Shannon-Waddamana) and Lake St. Clair (Butler's Gorge-Tarraleah) catchments, and control of practically the whole run-off from the Central Plateau has now been effected.

The Wayatinah Power Development, started in 1952, comprises two power stations and headworks to utilize water which is, in the main, already regulated and which has been used several times. The volume of water available is much larger and the head smaller than in the case of other major stations.

For further details of these schemes see Official Year Book No. 48, pp. 243-4, and earlier issues.

The Catagunya Power Development utilizes the whole of the waters flowing through Tarraleah and Tungatinah Power Stations and successively through the Liapootah and Wayatinah Power Stations plus water from the Florentine River. Preliminary construction on this development began early in 1957. Four miles below Wayatinah, a diversion dam was constructed at Catagunya, and a power station with an installed capacity of 48,000 kW was completed at the end of June, 1962. The dam was designed and built as a pre-stressed concrete structure, 147 feet in height, and it is notable as being only the second of its type and the largest yet undertaken by this technique anywhere in the world.

The total installed capacity of the present system throughout Tasmania in June, 1962, was as follows.

Power station							Installed capacity of alternators
							kW
Shannon .. .. .	..	..	..	..	..	..	10,500
Waddamana " A " .. .. .	..	..	..	..	..	..	49,000
Waddamana " B " .. .. .	..	..	..	..	..	..	48,000
Tarraleah .. .. .	..	..	..	..	..	..	90,000
Butler's Gorge .. .. .	..	..	..	..	..	..	12,200
Trevallyn .. .. .	..	..	..	..	..	..	80,000
Tungatinah .. .. .	..	..	..	..	..	..	125,000
Lake Echo .. .. .	..	..	..	..	..	..	32,400
Liapootah .. .. .	..	..	..	..	..	..	83,700
Wayatinah .. .. .	..	..	..	..	..	..	38,250
Catagunya .. .. .	..	..	..	..	..	..	48,000
<b>Total</b> .. .. .	..	..	..	..	..	..	<b>617,050</b>
King Island (diesel plant) .. .. .	..	..	..	..	..	..	390

(ii) *New Capacity.* The installed capacity of the system now stands at 617,050 kW, and approved construction will bring this total to approximately 950,000 kW by 1968. Investigations are continuing into the very considerable resources as yet untouched, principally in the west and north-west of the State, and it is estimated that the potential which can be developed economically should ultimately harness 2,400,000 kW to the system.

The Hydro-Electric Commission is engaged on a construction programme which comprises the Great Lake Power Development and the Lower Derwent Power Development. In the first named, the water of the Great Lake, by its diversion in the direction of the most precipitous fall, will be used to much greater advantage than at present. Eventually reaching the South Esk River, it will be used again through the generators of the Trevallyn Power Station. In this development, the power will be generated by the fall of water through a vertical distance of 2,730 feet to an underground power station where generators of 300,000 kW capacity will be installed. The station will be known as Poatina Power Station. A further section of the scheme includes the provision of a dam at Arthur Lakes to increase greatly the storage of the system, and a pumping station and a conduit discharging into the Great Lake so that water from this catchment may be utilized through the Poatina Power Station.

In the Lower Derwent Power Development, a new three-stage development has been sanctioned for construction below Catagunya on the River Derwent. With dams and power stations named Repulse, Cluny and Meadowbanks, the completion of this project by 1968 will add a further 85,000 kW to the system, and it will also bring to an end the exploitation of the power potential of the River Derwent and its tributaries.

The Commission is conducting extensive surveys and investigation of other schemes with a view to further construction after the completion of the present programme.

3. *Power Usage by Secondary Industry.*—The abundant and comparatively cheap supplies of electricity and other natural resources have attracted to Tasmania a number of important secondary industries for which energy costs constitute a large proportion of the total cost of production. These include the Electrolytic Zinc Company of Australasia Ltd., the Aluminium Production Corporation, the Australian Newsprint Mills Ltd., the Associated Pulp and Paper Mills Ltd., the Australian Commonwealth Carbide Company Ltd., the Mount Lyell Mining and Railway Company Ltd., and the Goliath Portland Cement Company Ltd. A new industry which came into operation for the first time during 1962 is a subsidiary of the Broken Hill Pty. Co. Ltd. with the name of the Tasmanian Electro Metallurgical Co. Pty. Ltd., at Bell Bay, engaged in the manufacture of ferro-manganese. The continuous power demands of all these organizations when plant is in full operation aggregates 210,300 kW.

A new paper pulp mill is being constructed by Australian Paper Manufacturers Ltd. at Geeveston, south of Hobart, and this is scheduled to be in operation towards the end of 1962. The Associated Pulp and Paper Mills Ltd. is now constructing an entirely new particle board mill at Wesley Vale, near Devonport in northern Tasmania, and it is known that other industrial undertakings in the State are also contemplating expansions of their activities.

## § 7. Commonwealth Territories

1. *Internal Territories.*—(i) *General.* The electricity supply undertakings at Canberra in the Australian Capital Territory and at Darwin, Katherine, Tennant Creek and Alice Springs in the Northern Territory are operated by the Commonwealth Government.

(ii) *Australian Capital Territory.* The supply authority is the Canberra Electric Supply. Supply was first established at Canberra during 1915 and was met from local steam plant. Connexion to the New South Wales interconnected system was effected in 1929, and all requirements are now taken from this system. Locally owned plant consists of diesel alternators of 4,000 kW which are retained as a standby for essential supplies, and steam plant of 5,100 kW which is retained at present, but whose further use, in the light of present known requirements, is doubtful.

Total population served with electricity at 30th June, 1962, was 65,000 and the total number of ultimate consumers was 19,231.

During the year 1961–62, the bulk electricity purchased was 165,925,850 kWh and the maximum demand incurred was 45,720 kW.

(iii) *Northern Territory.* At Darwin, supply was established by the Town Council in October, 1934, but during April, 1937, responsibility for generation and supply was transferred to the Northern Territory Administration. The power station is now equipped

with diesel generating plant of 7,770 kW capacity, an additional generating set of 1,000 kW having been installed during 1962. At Alice Springs, the power station is equipped with diesel generating plant of 3,356 kW capacity following the installation of a 1,090 kW generating set during the year.

At Katherine, the power station is equipped with a small diesel generating plant of 470 kW capacity. The diesel station at Tennant Creek was closed down in 1957, supply for the township being purchased in bulk from Peko Mines N.L.

The total number of ultimate consumers served in the Territory at 30th June, 1962, was 5,357.

In 1956-57, the Department of Works selected a site on the water front of Darwin for a 15,000 kW steam-driven generating set. This steam station was completed during 1962 and is designed to supply Darwin and suburbs when the present diesel station has reached its maximum economical capacity. A 66 kV transmission system has been built.

2. *External Territories—Papua and New Guinea.*—Responsibility for the operation and establishment of the electrical undertakings in Papua and New Guinea is at present vested in the Administration of the Territory of Papua and New Guinea, whose headquarters are located at Port Moresby, but this responsibility will shortly be vested in an Electricity Commission. The total generating capacity of the diesel engine driven generating sets amounts to 14,040 kW and of the hydro operated sets to 5,930 kW. The generating capacity of the power plants at the main centres is—Port Moresby, diesel 2,223 kW, hydro, 5,500 kW; Rabaul, 3,000 kW; Lae, 2,640 kW; Madang, 1,610 kW; Samarai, 300 kW; Kavieng 194 kW; Wewak, 413 kW; Lorengau, 60 kW; Goroka, hydro, 400 kW; Aiyura, hydro, 30 kW; and 3,600 kW distributed among 115 outstations whose generating capacity is between 5 kW and 50 kW. The townships of Wau and Bulolo are supplied by power generated by the Bulolo Gold Dredging Co., which operates a hydro-electric plant of 5,500 kW. Power produced in this plant is used mainly to supply the plywood mill and gold dredges at Bulolo.

The total number of ultimate consumers served in the Territory was 7,931 at 30th June, 1962.

Hydro-electric potential in New Guinea has been estimated at 15,000,000 kW, but, because of the island's location, absence of large load centres and lack of industrialization, there has been very little development.

In 1950, the Commonwealth Government joined with the British Aluminium Co. Ltd. of London to locate and develop large capacity hydro-electric schemes in New Guinea. A new company was formed, known as New Guinea Resources Prospecting Co. Ltd., with a capital of £100,000. The Commonwealth Government held 51 per cent. of the shares and had a controlling interest on the board of five members, but later sold its interest to a company formed by Consolidated Zinc Pty. Ltd., and the British Aluminium Co. Ltd., both of London.

At Port Moresby, at a site two miles downstream from the Rouna Falls, a hydro-electric plant with an installed capacity of 5,500 kW is operating. Works are at present in hand to regulate the flow of the Laloki River to 180 cusecs, from a present minimum approximating 80 cusecs, by the erection of a dam on the Laloki River at a location known as Sirinumu, 9 miles upstream from the Rouna Falls. The design provides for a second stage in the dam height which will provide regulation to a minimum of 400 cusecs. Designs are at present being prepared for the construction of a second power station which will utilize the head available at the Rouna Falls and some 100 feet head in the rapids above the Falls. The plant proposed will be initially two units each of 6,000 kW, and provision will be made for the installation of a further three units, giving a total capacity of 30,000 kW. At Aiyura, a 30 kW hydro-electric station for the Agricultural Experimental Station has been operating since August, 1956.

At Goroka, the plant installed consists of two 100 kW and one 200 kW units. This is the ultimate development at this site. Investigations are being made on other proposals within the area.

Investigations are advanced for a proposal to develop the potential available in the Upper Ramu River for a power supply to Lae, Goroka, Kainantu and Madang. It is proposed that the initial installation will consist of two 5,000 kW sets with provision for the installation of a further three 5,000 kW sets. Investigations are proceeding for a proposal to develop the potential of the Towanokoko and Pondo Rivers in the Bainings area of the Gazelle Peninsula to provide a supply to Rabaul and other settlements in the peninsula.



Stream-gauging and other preliminary investigations for hydro-electric schemes have been carried out at Lae, Rabaul, Madang, Wewak and Highland Stations.

There are possibilities for major hydro-electric development in the following localities:—Rouna Falls (near Port Moresby), Upper Snake and Busu-Erap-Leron (near Lae), Upper Ramu (near Markham-Ramu divide—80 miles from Lae) and Hathor Gorge (on Purari River), with an estimated average power of 100,000 kW, 150,000 kW, 2 million kW, 250,000 kW, and 3 million kW respectively. These have estimated run-offs of 1,400, 6,000, 12,000, 1,000 and 75,000 cusecs respectively.

In an area of 150,000 square miles of the eastern New Guinea mainland, the power potential has been estimated at 150 kW per square mile, which compares favourably with potentials of 170 kW per square mile for Switzerland and 95 kW per square mile for Norway.

### STATISTICAL SUMMARY

The following table shows statistics for each State separately and for the six States combined for the year 1960-61.

Statistics of the electricity supply industry for the years 1956-57 to 1960-61 are given in Chapter VI. Manufacturing Industry.

#### CENTRAL ELECTRIC STATIONS, 1960-61

Year		N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Australia
<b>Generating stations—</b>								
Government	No.	26	14	..	10	12	9	71
Local authority	"	16	12	55	8	37	..	128
Companies	"	16	15	2	15	40	3	91
<i>Total</i>	<i>.. ..</i>	<i>58</i>	<i>41</i>	<i>57</i>	<i>33</i>	<i>89</i>	<i>12</i>	<i>290</i>
<b>Installed capacity of generators—</b>								
Steam	.. '000 kW	2,254	1,175	655	(a)	305	(a)	4,922
Hydro	..	529	332	79	(a)	2	(a)	1,522
Internal combustion	"	70	39	33	(a)	65	(a)	221
<i>Total</i>	<i>.. ..</i>	<i>2,853</i>	<i>1,546</i>	<i>767</i>	<i>(a)</i>	<i>372</i>	<i>(a)</i>	<i>6,665</i>
Persons employed(b)	No.	4,421	3,476	1,646	(a)	1,065	(a)	12,298
Value of output(c)	£'000	52,855	30,013	15,236	(a)	8,470	(a)	120,307
Value of production(d)	"	35,687	16,784	6,958	(a)	4,270	(a)	72,964
Electricity generated(e)								
million kWh		10,000	6,556	2,693	1,898	1,036	2,631	24,814
Ultimate consumers(f)	No.	1,221,673	956,485	431,225	321,000	165,634	123,104	3,219,121

(a) Not available for publication; included in the total for Australia. (b) Average employment in generating station, over whole year, including working proprietors. (c) Value, at generating station, of electricity produced plus certain earnings. (d) Value added in the process of generation. (e) Total generated including that generated by factories for their own use. (f) Approximate figures supplied by the electricity authority in each State. An "ultimate consumer" is a person, business, undertaking, etc., that has contracted to receive electric power from a public or private organization supplying this service. The number of ultimate consumers is not identical with the number of persons served with electricity because one ultimate consumer may represent three or four persons, e.g. in a household.

## CHAPTER VIII

### WATER CONSERVATION AND IRRIGATION

#### RESOURCES, UTILIZATION AND NATIONAL AND INTERSTATE ASPECTS

##### § 1. Introduction

Official Year Book No. 37, pages 1096-1141, contained a special article on the conservation and use of water in Australia, and for details of general, descriptive and historical matter reference should be made to this article.

For further details on geographical and climatic features determining the Australian water pattern, reference should be made to Chapter II. Physiography; on water supply and sewerage in metropolitan areas, cities and towns to Chapter XIX. Local Government; and on the generation of hydro-electric power to Chapter VII. Electric Power Generation and Distribution, of this issue.

A series of maps showing the location of major dams and reservoirs and the various irrigation schemes operating in each of the States may be found on pages 259-65 of Official Year Book No. 46, and a map showing the extent of known artesian basins throughout Australia is shown on page 273 of issue No. 48.

##### § 2. Water Resources and their Utilization

**1. Surface Supplies.**—Though river gaugings have been recorded over considerable periods in some parts of Australia, records elsewhere are intermittent, of short duration, or non-existent. At present, therefore, it is impossible to estimate, with any degree of reliability, the total average annual flow of Australian streams, but it would probably amount to only a small figure in comparison with the flow of rivers in other continents, some examples of which, expressed as mean annual discharges in millions of acre feet, are: Nile, 72; Danube, 228; Amazon, 1,780; Volga, 148; Mississippi, 474; and the ten main rivers of the United States of America in the aggregate, 900.

**2. Major Dams and Reservoirs.**—The table below lists existing major dams and reservoirs, together with those under construction and those projected, at June, 1962. The list is confined to dams and reservoirs with a capacity of 100,000 acre feet or more. There are, in addition, many others of smaller capacity in Australia.

#### MAJOR DAMS AND RESERVOIRS IN AUSTRALIA

Name	Location	Capacity (acre feet)	Height of wall (feet)	Remarks
EXISTING DAMS AND RESERVOIRS				
Eucumbene ..	Eucumbene River, New South Wales	2,500,000	381	Part of Snowy Mountains Hydro-electric Scheme
Eildon .. ..	Upper Goulburn River, Victoria	2,750,000	260	Storage for irrigation and for the generation of electricity
Hume .. ..	Murray River near Albury	2,500,000	142	Part of Murray River Scheme—storage for domestic, stock and irrigation purposes. Hydro-electric power also developed
Menindee Storage	Darling River, near Menindee, New South Wales	2,000,000	..	Part of Darling River Water Conservation Scheme for irrigation and possible hydro-electric power generation
Warragamba ..	Warragamba River, New South Wales	1,670,000	379	For Sydney water supply. Also provides for generation of hydro-electricity and flood mitigation

(a) Useful storage only.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued*

Name	Location	Capacity (acre feet)	Height of wall (feet)	Remarks
<i>EXISTING DAMS AND RESERVOIRS—continued</i>				
Miena .. ..	Great Lake, Tas- mania	(a)984,500	40	Regulates water to Waddamana hydro-electric power station
Burrinjuck ..	Murrumbidgee River, New South Wales	837,000	264	Storage for irrigation and pro- duction of hydro-electric power
Somerset .. ..	Stanley River, Queensland	735,000	173	Brisbane-Ipswich water supply, flood mitigation and small hydro-electric power station
Lake Victoria ..	Murray River, near South Australian border, in New South Wales	551,700	..	Natural storage for irrigation in South Australia. Storage im- proved by construction of embankments and control regulators
Lake Echo .. ..	Lake Echo, Tas- mania	(a)412,200	60	Storage for Lake Echo and Tun- gatinah hydro-electric power stations
Keepit .. ..	Namoi River, near Gunnedah, New South Wales	345,000	177	For rural water supplies and hydro-electricity generation
Waranga .. ..	Goulburn River, Victoria	333,400	..	Irrigation storage
Tinaroo Falls ..	Barron River, north Queensland	330,000	133	For irrigation purposes in the Mareeba-Dimbulah area
Glenbawn .. ..	Hunter River, near Scone, New South Wales	293,000	251	Part of Hunter Valley conserva- tion work, for irrigation and flood mitigation
Rocklands .. ..	Glenelg River, Vic- toria	272,000	..	Part of Wimmera-Mallee domes- tic and stock water supply system
Clark .. ..	Derwent River, Tas- mania	(a)253,400	200	Serves Tarraleah hydro-electric power station
Wyangala .. ..	Lachlan River, New South Wales	(b)245,000	200	Storage for domestic, stock and irrigation purposes and for generation of hydro-electric power. (See also under Dams and reservoirs under con- struction)
Tantangara ..	Murrumbidgee River, New South Wales	(a)193,000	148	Part of Snowy Mountains Hydro- electric Scheme
Avon .. ..	Avon River, New South Wales	173,800	232	Part of Sydney water supply
Glenmaggie ..	Gippsland, Victoria	154,300	100	Storage for irrigation
Lake St. Clair ..	Central Highlands, Tasmania	(a)154,200	..	Improved natural storage for Tarraleah hydro-electric power station
Wellington ..	Collier River, Western Australia	150,100	112	For supply of water to irrigation districts and to agricultural areas and country towns
Serpentine ..	Serpentine River, Western Australia	144,000	171	For Perth water supply
Lake Brewster ..	Lachlan River, near Hillston, New South Wales	123,900	..	Storage of rural water supplies for the lower Lachlan
Cairn Curran ..	Loddon River, Vic- toria	120,600	..	Storage for irrigation
Upper Yarra ..	Yarra River, Victoria	110,000	270	For Melbourne water supply

## DAMS AND RESERVOIRS UNDER CONSTRUCTION

Burrendong ..	Macquarie River, near Wellington, New South Wales	1,361,000	250	For rural water supplies, flood mitigation and possible hydro- electric power generation
Wyangala ..	Lachlan River, New South Wales	1,000,000	270	Strengthening and enlarging of existing dam for increased water supply and hydro- electric power generation. (See also under Existing dams and reservoirs)
Eppalock ..	Campaspe River, near Heathcote, Victoria	250,000	150	To supplement supply to Bendigo and for irrigation
Koombooloomba ..	Tully River, north Queensland	146,000	123	For hydro-electric and possibly irrigation purposes

(a) Useful storage only.

(b) Temporary reduced level.

## MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—continued

Name	Location	Capacity (acre feet)	Height of wall (feet)	Remarks
DAMS AND RESERVOIRS PROJECTED				
Burdekin Falls ..	Burdekin River, North Queensland	6,584,000	150	For generation of hydro-electric power, irrigation and flood mitigation
Chowilla ..	Murray River, in South Australia, near Victorian border	4,850,000	63	Regulation of the lower Murray River
Ord River ..	Near Wyndham, Western Australia	3,500,900	200	For irrigation, generation of hydro-electric power and flood mitigation. (Additional 6,000,000 acre-feet flood control proposed)
Blowering ..	Tumut River, New South Wales	846,000	275	For regulation of discharges from stations of Snowy Mountains Hydro-electric Scheme, primarily for irrigation but also for power generation
Jindabyne ..	Snowy River, New South Wales	560,000	210	Part of Snowy Mountains Hydro-electric Scheme
Warkworth ..	Wollombi Brook, Hunter Valley, New South Wales	406,000	130	Flood mitigation and irrigation dam for the Hunter Valley
Arthur Lakes ..	Source of Lake River near Great Lake, Tasmania	(a)339,000	50	Part of Great Lake hydro-electric power development
Tumut 4 ..	Tumut River, New South Wales	138,000	300	Part of Snowy Mountains Hydro-electric Scheme
Tumut 3 ..	Tumut River, New South Wales	120,000	240	Part of Snowy Mountains Hydro-electric Scheme

(a) Useful storage only.

3. Irrigation.—(i) *History*. For some brief remarks on the history of irrigation in Australia see issues of the Official Year Book prior to No. 39. Trends in irrigation practice in more recent years were described in Official Year Book No. 37, page 1099.

(ii) *Extent and Nature of Irrigated Culture*. The following table shows the area of land irrigated in each State during the seasons 1957–58 to 1961–62, and the nature of irrigated culture in each State in 1961–62.

AREA OF LAND IRRIGATED  
(Acres)

Season and crop	N.S.W. (a)(b)	Vic. (c)	Q'land	S. Aust.	W. Aust.	Tas.	N.T. (d)	A.C.T.	Aust. (e)
1957–58 ..	695,365	1,001,800	160,345	80,853	41,319	15,321	127	1,396	1,996,526
1958–59 ..	641,361	965,766	154,633	85,081	44,102	13,431	274	1,224	1,905,872
1959–60 ..	889,441	1,052,782	152,136	100,899	45,889	18,108	365	869	2,260,489
1960–61 ..	837,191	1,007,180	186,697	102,023	48,551	18,934	602	1,432	2,202,610
1961–62—									
Rice ..	50,223				(f)		(g)		(h)50,223
Vegetables ..	2,784	22,197	32,139	11,312	9,596	3,388	104	129	81,649
Fruit ..	18,080	42,671	6,537	25,236	8,840	3,930	105	3	189,619
Vineyards ..	11,515	44,563		27,167	972				
Sugar-cane ..	(f)		74,541		(f)	1,447			(h)74,541
Hops ..		(f)			(f)				(h) 1,447
Cotton ..			2,040		(f)				(h) 2,040
Other crops (including fodder and fallow land)	162,519	108,039	(i) 73,618	25,341	4,235	2,711	89	489	377,041
Total, Crops ..	245,121	217,470	188,875	89,056	23,643	11,476	298	621	776,560
Pastures ..	527,845	900,430	20,544	19,344	25,036	11,713	240	682	1,505,834
Total 1961–62 ..	964,748	1,117,900	209,419	108,400	48,679	23,189	538	1,303	2,474,176

(a) Source: Water Conservation and Irrigation Commission. (b) Includes total area irrigated by Licensed Diversions (191,782 acres), but details for individual crops, etc., are not available. (c) Source: State Rivers and Water Supply Commission. (d) Incomplete, excludes area of rice irrigated. (e) See footnote (b) to New South Wales. (f) Included in Other crops. (g) Not available for publication; excluded from totals. (h) Incomplete, see footnotes to individual States. (i) Includes tobacco, 13,671 acres.

About half of Australia's irrigated acreage is in Victoria, and about two-thirds is situated along the Murray and its tributaries (including the Murrumbidgee) in the three States of New South Wales, Victoria and South Australia. In those areas served by the Murray and its tributaries, irrigation water is used extensively for vines, orchards, pastures, fodder, and for domestic and stock purposes. Approximately forty per cent. of Queensland's irrigated acreage is devoted to sugar cane. Western Australia's small irrigated acreage is confined to areas in the south-west where vegetables, orchards, fodder, and pastures are served. Large scale irrigation schemes have not been developed in Tasmania or the Northern Territory, although investigations are at present being carried out in the Northern Territory to determine the availability of irrigation water for agriculture.

(iii) *Research.* Comprehensive programmes of research and investigation are being pursued by State water and agricultural authorities and the Commonwealth Scientific and Industrial Research Organization, often in collaboration. Special attention is being given to the following:—high water tables due to the application of water; surface accumulation of salt and other soil changes associated with irrigation; methods of applying water efficiently; soil treatments to improve the physical condition of irrigated heavy clay soils; the utilization of irrigated pastures by stock; growth problems affecting plants and trees; the prevention of evaporation from water storages; and the potability of saline waters for stock.

Irrigation is studied by the Commonwealth Scientific and Industrial Research Organization at a number of its research stations and laboratories, the principal one being the Irrigation Research Laboratory at Griffith (New South Wales), where investigations are concerned with limiting the degradation of land by irrigation, improving the quality and range of irrigated crops, and assessing the amount of water required by irrigated crops and the most economical means of applying it. The crops being studied include citrus, cotton, oil poppy, wine grapes, and lucerne. The Organization's Division of Plant Industry studies irrigated pastures at Deniliquin (New South Wales) and Canberra (Australian Capital Territory), and tobacco at Mareeba (Queensland). At Merbein (Victoria), the Horticultural Research Section is working on problems of the dried-fruit industry. The Division of Land Research and Regional Survey conducts research on rice at the Coastal Plains Research Station, Darwin (Northern Territory), and on a number of irrigated crops, including rice, safflower, linseed, mustard and cotton at the Kimberley Research Station (Western Australia). The Division has also carried out a number of hydrological investigations in connexion with the utilization of underground water for irrigation. The Division of Soils is studying methods of reducing seepage from earthen dams, and takes part in the examination of the physical properties of sediments beneath proposed dam sites. The Division is also looking at underground water movement and the water balance in the south-east of South Australia, and at the drainage and soil moisture regime of the irrigated swamps of the lower Murray River. The Division of Physical Chemistry is investigating methods of minimizing evaporation losses from water storages by the use of monomolecular layers.

The Irrigation Research and Extension Committee plays an important part in the agricultural activity of the Murrumbidgee Irrigation Areas. It is representative of the New South Wales Department of Agriculture, the Commonwealth Scientific and Industrial Research Organization, the Rural Bank of New South Wales, the Soil Conservation Service of New South Wales and certain farmers' organizations (including extension groups). Finance is provided by these authorities on an agreed basis. The objectives are:—to enable the agricultural extension services to the farmers in the defined sub-region to be continued and developed; to provide a system for advising on local agricultural policy and organization; to provide means for farmer opinion to have due weight in the consideration of

regional agricultural administration and policy; to achieve a unified approach to sub-regional extension in all branches of agriculture; to advise on the research needs of the sub-region and the co-ordination of the agricultural research of the various rural institutions working therein; to achieve close liaison between research and extension; and to conduct research in extension methods.

**4. Preservation of Catchments.**—Since water conservation commences on the catchments, it is becoming increasingly recognized that anything which interferes with catchment efficiency affects the quantity of water available for all purposes. Active steps are being taken to counteract soil erosion, to conserve soil generally, and to minimize the effects of floods, overstocking, bush fires, and the destruction of vegetative cover. All States and the Commonwealth have initiated forestry policies which provide for reafforestation and the preservation of catchments. In recent years, efforts to counteract soil erosion have been intensified, and there is some evidence of a more unified approach to catchment, water, forestry, and land use factors regarded as parts of a single problem.

**5. Sub-surface Supplies.**—(i) *General.* Much of Australia's underground water is obtained from artesian and sub-artesian basins and is used for stock purposes. These supplies are indispensable in most inland areas. The quality of the water ranges from usable to very saline. In inland areas, a considerable amount of water has been tapped that is unusable because of its high salt content. Because of this, development of an economic desalting process would provide the interior with additional large quantities of usable water.

Considerable use is also made of sub-surface water, other than pressure water, from local storages, particularly in the well-settled areas. The water is used mainly for domestic and stock purposes. Compared with other countries with similar rainfall and climate, underground water is not used extensively for town and individual industrial supplies, but its use for these purposes is increasing.

The Underground Water Conference of Australia was established as a result of recommendations made by the Australian Academy of Science to the Commonwealth Government in 1958. The Conference, which consists of representatives of Commonwealth and State departments interested in underground water, held its first formal meeting in Canberra in 1961, and the second meeting in Adelaide in 1962. Several committees have been established to carry out the work of the Conference. These include an Education Committee, a Great Artesian Basin Committee and State Committees on Underground Water Resources.

The various States and Territories maintain Geological Surveys and Water Commissions which are continually extending the knowledge of their own States. These authorities have been assisted more recently by various scientific and industrial foundations. In New South Wales, for example, the Hunter Valley Research Foundation is carrying out scientific investigations in the catchment area of the Hunter River, and this includes an integrated study of water, soils and climate.

In addition, the University of New South Wales recently formed the Water Research Foundation which has among its objectives research into underground water. To date, research has been devoted mainly to run-off studies, to the design of large earth farm dams and to sponsoring post-graduate hydrology courses.

As a result, a general picture exists of Australia's available and potential underground water resources. Much remains, however, to be done in the mapping and assessment of individual artesian and sub-artesian basins and in the investigation of their constituent aquifers. Detailed investigations also remain to be carried out of shallower underground water in alluvial deposits, coastal sands and mantles of weathered and jointed rock.

Surveys of this nature are of great importance because of the fundamental need for underground sources of water in the settlement of large areas of Australia.

(ii) *Artesian and Sub-artesian Supplies.* Pressure water (either artesian or sub-artesian), variable in quantity and quality, is obtainable in many parts of Australia, the various artesian basins extending over about half the continent. A map of Australia showing the extent of the known artesian basins appears on page 273 of Year Book No. 48.

The Great Artesian Basin, the most extensive in the world, underlies an area of approximately 657,000 square miles, comprising about 430,000 in Queensland, 107,000 in South Australia (exclusive of about 13,000 square miles of subsidiary basins), 80,000 in New South Wales and 40,000 in the Northern Territory. The following are the principal defined water-bearing basins in Australia.

## PRINCIPAL WATER-BEARING BASINS IN AUSTRALIA

Name	State	Geological age of chief aquifers	Approximate area	Depth to pressure water
			Square miles	Feet
Great Artesian ..	Queensland, New South Wales, South Australia and Northern Territory	Mesozoic .. ..	657,000	Up to 7,000
Canning ..	Western Australia	Mesozoic-Palaeozoic	175,000	100 to 1,800
Murray ..	Victoria, New South Wales and South Australia	Miocene-Eocene ..	107,000	100 to 1,300
Eucla .. ..	Western Australia, South Australia	Pliocene-Miocene ..	68,000	300 to 2,000
Barkly-Georgina	Northern Territory, Queensland	Cretaceous, Ordovician, Cambrian and Upper Proterozoic(?)	57,000	150 to 1,000
Carnarvon ..	Western Australia	Cretaceous, Permian ..	50,000	200 to 4,000
Perth .. ..	Western Australia	Tertiary, Silurian-Ordovician, Mesozoic	23,000	200 to 2,500
Western District (Otway)	Victoria ..	Pleistocene-Upper Cretaceous	6,500	100 to 4,500
Pirie-Torrens ..	South Australia ..	Recent, Pleistocene ..	4,000	Up to 600
East Gippsland ..	Victoria ..	Pleistocene-Eocene ..	2,500	200 to 3,500
Adelaide ..	South Australia ..	Recent, Oligocene ..	1,100	200 to 600
Basins of Ord-Victoria region	Northern Territory, Western Australia	Mainly Cambrian and Permian	Unknown	Unknown

More than 3,000 artesian bores have been constructed within the Great Artesian Basin, while the daily free discharge from all bores continuing to flow in Australia has been stated to exceed 350 million gallons, of which the loss by evaporation and seepage has been estimated at more than 90 per cent. Sub-artesian bores and wells throughout Australia number more than 200,000.

Artesian water generally is good stock water, but most is unsuitable for plant life, while in certain areas sub-artesian waters are suitable for all uses including irrigation. In the Eucla Basin and parts of the Murray and Pirie-Torrens Basins, the water is of poor quality, being barely suitable for stock.

In common with other countries possessing artesian supplies, Australia has been faced with the problem of flow diminution. It was recognized early that flows were diminishing as more bores were drilled, but it is now considered that while many of the bores will ultimately cease to flow, others will assume a perpetually steady rate of flow, corresponding with the average intake of water from rainfall absorbed by permeable outcrops, mainly sandstone and limestone. Diminution in flows from artesian bores has emphasized the need to eliminate wastage as much as possible, and investigations have been made regarding wasteful methods of distribution of artesian water by open channels or bore drains and the careless use of water. (For greater detail on this subject see Official Year Book No. 37, pp. 1103-4.)

(iii) *Shallow Groundwater.* Shallow groundwater supplies are used in various parts of Australia for industry, irrigation, stock and domestic purposes. Two of the most important of these supplies are in New South Wales. The Hunter District Water Board pumps 15 million gallons a day for general use from the Tomago coastal sands near Newcastle, and at Botany, Sydney, private industry pumps 8-10 million gallons a day for its own use from similar sands. Exploration of the coastal sands north of the Tomago Sands has revealed a further potential production of 25 million gallons a day.

Over the past five years there has been a marked increase, particularly in Queensland, New South Wales and Victoria, in investigation into the underground water resources of river and coastal alluvium for irrigation and town water supplies.

### § 3. National and Interstate Aspects

1. *General.*—As the Commonwealth Constitution makes special reference to water rights, both the Commonwealth and the State Governments have an interest in the control and conservation of water. The main responsibility for control of water resources rests with the individual State governments, but as political boundaries sometimes intersect river valleys and catchments, co-operation between governments has been necessary to develop resources in certain cases. Specific examples of Commonwealth-State and interstate co-operation and approach are given in the following sections.

On page 257 of Official Year Book No. 47, information is given on the Rural Reconstruction Commission's Report of 1945, which emphasized national aspects of water conservation and use, and on the Irrigation Production Advisory Committee, whose functions are to prepare for consideration conclusions from investigations as to possible agricultural industries on irrigated lands, and to undertake long-term co-ordination of land utilization in irrigable areas served by the Murray River and its tributaries.

2. *Australian Water Resources Council.*—This Council was established late in 1962 to provide a means of securing the highest level of basic information on Australian water resources and of making it readily available. The major problem to be faced by the Council is that Australia does not have a reliable estimate of how much water is available now, and how much will be available in the future. The Council will therefore aim at providing a comprehensive assessment of Australia's water resources, and extending measurements and research so that future planning can be carried out on a sound and scientific basis.

The first meeting of the Council is expected to be held early in 1963. The Council will comprise the Minister for National Development as Chairman, the Minister for Territories, and the Minister in charge of water supplies from each State. Provision has been made for Ministers responsible for closely related activities to be co-opted when problems of particular concern to them are under discussion. The Council will be assisted by a Standing Committee of Commonwealth and State officers.

3. *Murray River Scheme.*—(i) *General.* The Murray River and its tributaries form the largest river system in Australia. The catchment is approximately 414,000 square miles, or one-seventh of the area of the Australian continent, comprising five-sixths of New South Wales, over one-half of Victoria, one-sixth of Queensland and one-fortieth of South Australia. The Murray proper is 1,600 miles long. Its main tributaries are the Darling (1,700 miles), the Murrumbidgee (980 miles), and the Goulburn (350 miles). The average annual flow of each of the chief contributory streams is as follows:—Upper Murray, including the Mitta Mitta and Kiewa Rivers, 3,623,000 acre feet; Darling River, 2,896,000 acre feet; Goulburn River (including Broken River), 2,570,000 acre feet; Murrumbidgee River, 2,054,000 acre feet; and Ovens River, 1,222,000 acre feet. Irrigated production in the River Murray Basin is mainly grapes for wine, dried fruits, fresh fruits, rice, vegetables, dairy produce, wool, and fat lambs.

(ii) *River Murray Waters Agreement.* For a brief summary of the historical events leading up to the River Murray Agreement (1915) by the Governments of the Commonwealth, New South Wales, Victoria, and South Australia, see issues of the Year Book prior to No. 39. Under the Agreement, construction works are carried out by the States (who are also responsible for maintenance) subject to the approval and direction of the Commission. The Agreement provides that the minimum quantity of water to be allowed to pass for supply to South Australia in each year shall be sufficient to fill Lake Victoria storage once, and with the aid of water returned from Lake Victoria, to maintain certain specified flows in the lower river varying from 47,000 acre feet a month in the winter months to 134,000 acre feet a month in the four summer months of maximum demand—the total amounting to 1,254,000 acre feet over twelve months. These flows are to meet domestic and stock requirements in South Australia, losses of water in lockages and evaporation losses other than in the lakes at the Murray mouth, together with 603,000 acre feet per annum for diversion from the Murray in South Australia. The flow at Albury is shared equally by New South Wales and Victoria, and each of these States has full control of its tributaries below Albury, subject in each case to the fulfilment of the South Australian allocation. For a brief outline of the operation of the Agreement prior to 1949, see Official Year Book No. 40, page 1065, and earlier issues.



At a conference of Ministers held in 1949 to consider the diversion of the Snowy River it was decided that, by diversion of streams in the Snowy Mountains area, an average of approximately 440,000 acre feet per annum would be added to the Murray River (*see* para. 5, Snowy Mountains Hydro-electric Scheme, p. 279) and that increased storage should be provided in order to give additional regulation of the Murray River itself as well as to provide for regulation of the diverted waters. Hydro-electric potentialities would also affect the size of the storage.

The River Murray Commission investigated the position and subsequently recommended to the contracting Governments that the River Murray Waters Agreement be amended to provide for enlargement of the Hume Reservoir by 500,000 acre feet to 2,500,000 acre feet. A conference of Ministers in 1954 agreed to the enlargement, and it was also agreed that the Commission should be given power to construct regulators and to carry out such other work on the Murray River between Tocumwal and Echuca as it considered necessary to reduce the losses from the regulated flow in that stretch of the river. The amended Agreement was ratified in the Parliaments of the Commonwealth and the three States and was proclaimed on 7th April, 1955. In view of the proposed diversions by the Snowy Mountains Authority to and from the Murray River, and for other reasons, amendments to those sections of the River Murray Waters Agreement dealing with the distribution of the waters of the Murray were considered desirable. Following ministerial conferences, amendments were ratified by the four Parliaments concerned, and came into force on 6th November, 1958.

The estimated quantity (in acre feet) of water diverted during 1961–62 from the Murray and its tributaries for irrigation and other purposes under the River Murray Agreement was as follows:—New South Wales, 3,170,000; Victoria, 2,163,000; South Australia, 299,000; a total of 5,632,000 acre feet.

(iii) *River Murray Works.* One of the major works of the Murray River Scheme is the Hume Reservoir, situated just below the junction of the Murray and Mitta Mitta Rivers, 10 miles above Albury, forming a lake of 56,000 acres. The design comprises a mass concrete spillway and outlet works extending for 1,000 feet, and an earthen embankment 142 feet high extending for 4,000 feet across the river flats, the length of the total structure being approximately one mile. Work on the enlargement of the reservoir to its approved capacity was completed in August, 1961.

The Yarrawonga Diversion Weir, which was completed in 1939, raised the river level so that water could be diverted by gravitation into main channels constructed on either side of the river. Between the Yarrawonga Weir and the Murray mouth, thirteen weirs and locks have been built. Two flood diversion weirs have been constructed on the Murrumbidgee—one between Hay and the Lachlan junction and the other below the Lachlan junction.

The Mulwala Canal, served by the Yarrawonga Weir, has an off-take capacity of 2,500 cubic feet a second, to serve 1,500,000 acres of land in New South Wales. The Yarrawonga Channel, on the Victorian side, has an off-take capacity of 1,250 cubic feet a second, to serve 270,000 acres. Only a portion of each area will be irrigated.

Adjoining the river in New South Wales, and 35 miles from the Murray-Darling junction, Lake Victoria storage, with a surface area of 27,670 acres, was completed in 1928. The water released from Lake Victoria is used by the South Australian settlements. The inlet channel to Lake Victoria was enlarged in 1957 to permit greater diversion of periodical flood flows of short duration.

Five barrages across channels near the Murray River mouth connecting Lake Alexandrina with the sea were completed in 1940 to prevent ingress of salt water to Lakes Alexandrina and Albert and to the lower river, thereby increasing the productivity of adjacent lands. The structures maintain a sufficiently high level for 50 miles up river to permit watering by gravitation of a considerable area of reclaimed river flats. The total distance across the barrages and intervening islands is 15 miles.

In addition to the works carried out under the auspices of the Commission, the separate States have constructed thousands of miles of distribution channels and have provided a number of storages on the tributaries, thereby contributing very materially to the large amount of irrigation development in the Murray Basin. The main storages are: New South Wales—Menindee Lakes Storage (Darling), Burrinjuck (Murrumbidgee), Keepit (Namoi) and Wyangala (Lachlan); Victoria—Eildon (Goulburn) and Waranga (Goulburn). Details of these and other State works on Murray tributaries will be found in the sections dealing with State systems. No storages exist on the Murray in South Australia at present, but the construction of a large storage at Chowilla on the river about 37 miles above Renmark was recently approved by the four contracting governments, who will share the estimated cost of £14 million.

4. **New South Wales-Queensland Border Rivers Agreement.**—The New South Wales-Queensland Border Rivers Agreement came into effect on 1st July, 1947. The Agreement provides for the construction of certain works on those sections of the Severn, Dumaresq, Macintyre and Barwon Rivers which constitute part of the boundary between New South Wales and Queensland for the furtherance of water conservation, water supply and irrigation in those States.

The works to be constructed comprise a dam on the Dumaresq River at a site to be selected by the Commission to give a storage basin with a capacity as large as is reasonably practicable and not less than six nor more than twelve weirs as may be found necessary to meet the requirements of irrigation along the rivers. Provision is also made for the construction of not more than four regulators in the effluents from the barrier rivers and for the taking over of the existing weir on the Macintyre River at Goondiwindi and the existing weir on the Barwon River at Mungindi. The cost of these works and of administration are to be borne by the States in equal shares. The agreement further provides that the water discharge from the Dumaresq storage, whether by regulated or unregulated flow, shall be available to the two States in equal shares.

The Water Conservation and Irrigation Commission of New South Wales, which is the constructing authority for the dam, carried out investigations of several dam sites on the Dumaresq River near Mingoola Station homestead, which is approximately 39 miles from Tenterfield. Foundation drilling supplemented by a geophysical survey carried out by the Commonwealth Bureau of Mineral Resources disclosed unfavourable foundation conditions at all sites, the depth of alluvium overlying sound rock exceeding 150 feet in all cases. In an endeavour to obtain more economical storages, investigations were extended to tributary streams, and superficially suitable sites have been located on Pike Creek and the Mole River. A geophysical survey was made at each of these sites and preliminary comparative estimates prepared to determine the relative economy of providing one large storage at Mingoola or two smaller storages on the tributaries. Following exploratory drilling of the tributary sites, a report dealing with alternative storage proposals and possible amendments to the existing Agreement was submitted to the participating States. This report is at present under consideration.

The Irrigation and Water Supply Commission of Queensland is the constructing authority for the new weirs and regulators. Bonshaw and Cunningham Weirs on the Dumaresq River were completed in 1953 and 1954 respectively.

A weir and regulator have been constructed on the Barwon River at the offtake of the Boomi River. A low level weir to establish a pumping pool at Glenarbon on the Dumaresq River was also constructed. The existing Goondiwindi and Mungindi Weirs are being maintained, operated and controlled by the Queensland Irrigation and Water Supply Commission. Until a dam has been constructed, it is unlikely that any weirs, other than those referred to above, will be required.

The catchments for the border streams (2,000 square miles) extend to the granite areas in the vicinity of Tenterfield (New South Wales) and Stanthorpe (Queensland), and elevation rises to 3,000 feet. Average rainfall is 30 inches. The catchments and the areas suitable for irrigation are approximately equal in each State. Climatic conditions are such that it is necessary to supplement rainfall from April to October by irrigation to stabilize and increase production. The capacity of the area to grow lucerne and tobacco under irrigation has already been demonstrated. Other possible development of the area includes irrigation of cotton, root crops, cereals, and citrus fruit, and expansion of the fat stock industry.

5. **Snowy Mountains Hydro-electric Scheme.\***—Following a comprehensive investigation into both the water and power potential of the Snowy River waters by a Technical Committee representative of the Commonwealth and the States of New South Wales and Victoria in 1947 and 1948, and the submission by the committee of reports in 1948 and 1949, the Commonwealth Parliament in July, 1949, passed the *Snowy Mountains Hydro-electric Power Act* setting up an Authority to implement the proposals agreed upon.

The basis of the proposals is to impound the Snowy River waters at high elevations and, by diverting them into tunnels passing under the Alps, to use their potential power for the generation of electricity and then to discharge them into the Murray and Murrumbidgee River systems for use in the irrigation areas.

\* See also Chapter VII. Electric Power Generation and Distribution, p. 248. For more detailed information see special article by the Commissioner, Snowy Mountains Hydro-electric Authority (Sir William Hudson) which appeared in Chapter XXIX. Miscellaneous, of Official Year Book No. 42.

The Scheme involves two main diversions, that of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River and that of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. In addition, works required to make use of the waters of the Upper Murrumbidgee, the Upper Tumut, the Upper Tooma and the Geehi Rivers for power generation also provide additional regulation of these streams, and this makes more water available for irrigation. Details of the two trans-mountain diversions and the associated power works together with details of progress and construction are given in Chapter VII. Electric Power Generation and Distribution (see p. 248).

An additional 500,000 acre feet of water per annum is now available for irrigation in the Murrumbidgee Valley. When all works are completed, it is estimated that the total gain to the Murrumbidgee by diversion and regulation will amount to 1,120,000 acre feet per annum and the total gain to the Murray will be 800,000 acre feet per annum. This additional water should be sufficient to provide irrigation for approximately 1,000 square miles of land which is expected to result in a substantial increase in annual primary production.

#### § 4. International Aspects

Australia maintains contact with international developments in water conservation and irrigation through its membership, since 1952, of the International Commission on Irrigation and Drainage. This Commission was set up in India in 1950 in order that the technical experience of all countries might be pooled for the benefit of all, and to promote the development and application of the science and technique of irrigation and drainage in the engineering, economic and social aspects. The Commission is constituted of National Committees of participating countries, and more than forty-five countries, including Australia, have already been admitted to membership.

The Central Office of the International Commission is situated in New Delhi, India. Congresses, which are held every three years, have taken place in India, Algeria, the United States of America and Spain, in that order. The fifth Congress was held in Tokyo, Japan, in May, 1963.

An Australian National Committee was established following a meeting of representatives of Australian authorities held in Melbourne in 1953. At that meeting, it was decided, *inter alia*, "that a National Committee should be formed and that the National Committee would consist of representatives of Government Departments, Statutory Authorities, firms and individuals actively interested in irrigation and drainage". The Committee meets annually.

### STATES AND TERRITORIES

#### § 1. Australian Local Pattern of Water Conservation and Use

The foregoing sections deal with water conservation and irrigation in Australia generally and with international, national and interstate projects. The following survey covers the local pattern of water resources and the steps taken by the State governments to bring about their development. It will be seen that water policies in the various States tend to assume a distinctive and characteristic pattern closely allied with climatic conditions and specific local needs.

In Victoria, almost every form of water scheme is in operation. In New South Wales, major emphasis at present is on irrigation and stock development in the dry areas along the Murray and Murrumbidgee Rivers, though a substantial scheme of intensive irrigation is being conducted in the Murrumbidgee Irrigation Areas. In Queensland, up to the present, the predominant emphasis has fallen on water (mainly underground sources) for stock, and the development of small irrigation schemes in sub-humid and humid areas, especially to stabilize sugar production.

Apart from regular irrigation practices along the Murray River, South Australian authorities are vitally concerned with reticulated supplies for rural areas and towns. Western Australia has developed unique rock catchments and piped supplies for agricultural areas and towns in dry districts. Tasmanian interest relates almost exclusively to hydro-electric generation. The Northern Territory is concerned primarily with stock supplies and the safeguarding of long stock routes.

## § 2. New South Wales

1. *General.*—(i) *Rainfall and History.* On page 1110 of Official Year Book No. 37, information is given on the pattern of rainfall and the history of irrigation in New South Wales. (See also Chapter II. Physiography, p. 45, of this issue.)

(ii) *Administration.* The Water Conservation and Irrigation Commission of New South Wales consists of three members appointed by the Governor. The operations of the Commission cover water conservation, control of irrigation areas, the establishment, operation and maintenance of works for domestic and stock water supply, irrigation districts, flood control districts, sub-soil drainage districts, constitution of water trusts, the issue of licences for private irrigation, artesian and shallow boring, assistance under the provisions of the farm water supplies scheme, and river improvement works.

Under the *Water Act* 1912–1952, the right to the use and flow, and the control of water in all rivers and lakes which flow through, or past, or are situated within, the land of two or more occupiers, is vested in the Commission for the benefit of the Crown. A system of licences operates for the protection of private works of water conservation, irrigation, water supply, drainage, and prevention of inundation.

For particulars of the New South Wales–Queensland Border Rivers Agreement ratified by Acts of both States in 1947, see page 279 of this chapter.

2. *Schemes Summarized.*—(i) *Location and Type.* The bulk of irrigated land is along the Murray and its tributary the Murrumbidgee. Smaller areas are served by the Wyangala Dam, Lake Cargelligo and Lake Brewster on the Lachlan (a tributary of the Murrumbidgee), by Glenbawn Dam on the Hunter River, by Keepit Dam on the Namoi River, and by the Menindee Lakes Storage on the Darling River. None of the other rivers is regulated by large head storages, though weirs and dams have been provided for town supplies, etc., in many places, and a head storage has been commenced on the Macquarie River. In addition, substantial use is made of artesian and sub-artesian water in pastoral areas.

New South Wales legislation provides for the constitution and control of various schemes having different characteristics and including irrigation areas, irrigation districts, water trust districts, flood control and irrigation districts, and river improvement districts. There are nine irrigation areas, although two of these, Yanco and Mirrool, are generally described under the one heading, namely, the Murrumbidgee Irrigation Areas. The Areas are:—The Murrumbidgee Irrigation Areas, consisting of 451,220 acres served with water through a channel system stemming from the river at Berembed Weir; the Coomalla Irrigation Area of 34,672 acres, served by pumping from the Murray; the Curlwaa Irrigation Area of 10,393 acres, supplied from the Murray by pumping; the Hay Irrigation Area of 6,850 acres, supplied with water pumped from the Murrumbidgee; the Tullakool Irrigation Area of 18,006 acres, supplied from the Edward River by diversion at Stevens Weir; the Buronga (8,693 acres) and Mallee Cliffs (1,900 acres) Irrigation Areas served by pumping from the Murray; and the Coleambally Irrigation Area (89,844 acres), served by diversion from the Murrumbidgee River. All these Areas are administered by the Commission, and details of the various schemes are given in sub-section (iii) below.

(ii) *Works.* The capacities of the main storages (in acre feet) are:—

*Darling*—Menindee Lakes Storages (2,000,000);

*Murray*—Half share of Hume Reservoir, weirs and locks to Wentworth (1,361,420); Stevens Weir, Edward River (7,165);

*Murrumbidgee*—Burrinjuck Dam (837,000); Berembed Weir (10,000); Redbank Weir (7,360); Maude Weir (6,740);

*Namoi*—Keepit Dam (345,000);

*Lachlan*—Wyangala Dam (temporary reduced level 245,000); Lake Brewster (123,900); Lake Cargelligo (29,435); Jemalong Weir (2,200); and

*Hunter*—Glenbawn Dam (185,000 acre feet irrigation storage; 108,000 acre feet flood mitigation storage).

The total length of supply channels, drains, escape channels and pipe lines constructed by the Water Conservation and Irrigation Commission in New South Wales is about 4,700 miles. This comprises 3,330 miles of supply channels (including main canals), 1,300 miles of drains and escape channels, and 70 miles of pipe lines.

(iii) *Extent of Systems and Nature of Irrigated Culture.* The following table shows the areas of the various irrigation systems in 1961-62 and particulars of the areas under irrigated culture in New South Wales during the seasons 1957-58 to 1961-62.

### AREAS OF SYSTEMS AND OF LAND IRRIGATED: NEW SOUTH WALES

(Acres)

(Source: Water Conservation and Irrigation Commission)

Season and system	Total area	Area irrigated(a)										Total
		Rice	Other cereals grown for grain	Fodder crops		Pastures		Vineyards	Orchards (b)	Vegetables	Fallow land and miscellaneous	
				Lucerne	Other	Sown	Natural					
1957-58(c) .. ..	6,744,874	46,774	43,660	66,693	40,212	379,554	19,957	13,076	21,300	17,724	46,415	695,365
1958-59(c) .. ..	6,746,225	47,054	24,905	46,677	14,271	414,606	12,169	13,039	22,134	15,828	30,678	641,361
1959-60 .. ..	6,781,246	48,972	79,147	31,513	12,463	464,421	4,763	12,365	17,761	4,048	47,215	889,441
1960-61 .. ..	6,901,105	46,116	33,436	34,950	10,490	458,360	5,412	12,388	17,962	3,362	36,195	837,191
1961-62—												
Irrigation Areas—												
Murrumbidgee (within the Areas) ..	451,220	27,171	11,505	5,362	1,754	91,612	1,677	4,353	15,321	2,387	24,463	185,605
Lands adjacent supplied under agreement ..	(e)	..	400	99	506	49	1,560	2	83	10	..	(f) 2,709
Coomaalla .. ..	34,672	..	..	5	..	..	..	4,498	1,222	19	..	5,744
Curlew .. ..	10,393	..	..	..	32	..	..	410	1,170	..	..	1,612
Hay .. ..	6,850	..	..	144	594	2,037	80	..	..	..	16	2,871
Tullakool .. ..	18,006	992	..	100	70	10,590	..	..	..	..	730	12,482
Buronga .. ..	8,693	..	..	..	..	..	..	..	..	..	..	..
Mallee Cliffs ..	1,900	..	..	..	..	..	..	..	..	..	..	..
Coleambally ..	89,844	3,167	9,706	110	457	1,151	..	..	..	2	9,583	24,176
Total .. ..	621,578	31,330	21,611	5,820	3,413	105,439	3,317	9,263	17,796	2,418	34,792	235,199
Irrigation Districts—												
Benerambah ..	112,818	5,107	4,750	1,900	429	35,101	340	..	..	30	6,730	54,387
Tabbata .. ..	32,330	314	600	410	250	5,698	200	..	..	38	125	7,635
Wah Wah .. ..	575,716	..	4,870	1,330	260	10,175	200	..	..	..	4,840	21,675
Berriquin .. ..	803,737	..	10,222	16,663	2,693	226,305	640	..	..	128	1,875	258,526
Wakool .. ..	503,322	6,804	3,551	1,930	3,419	84,658	400	..	..	21	277	101,060
Denimein .. ..	147,005	2,785	3,975	2,450	1,760	15,845	..	..	12	30	195	27,052
Jemalong and Wylde's Plains .. ..	224,556	..	6,093	7,599	463	11,892	..	..	..	..	989	27,036
Gumly .. ..	353	..	42	67	2	25	..	..	20	..	75	231
Denibootea ..	337,252	3,883	2,065	2,104	1,335	27,610	..	..	..	..	620	37,617
Total .. ..	2,737,089	18,893	36,168	34,453	10,611	417,309	1,780	..	32	322	15,651	535,219
Flood Control Districts—												
Lowbidgee ..	399,707	..	..	..	..	..	..	..	..	..	..	(e)
Medgun .. ..	272,800	..	..	..	..	..	..	..	..	..	..	(e)
Total .. ..	672,507	..	..	..	..	..	..	..	..	..	..	(e)
Irrigation Trusts—												
Pomona .. ..	1,580	..	..	..	..	..	..	760	130	..	..	890
Goodnight ..	1,104	..	..	..	..	..	..	512	39	..	4	555
Bungunyah-Koraleigh ..	1,810	..	..	..	..	..	..	980	83	40	..	1,103
Glenview .. ..	661	..	..	..	..	..	..	..	..	..	..	..
Brangan .. ..	4,933	..	..	..	..	..	..	..	..	..	..	(e)
Bama .. ..	3,446	..	..	..	..	..	..	..	..	..	..	..
Total .. ..	13,534	..	..	..	..	..	..	2,252	(f) 252	(f) 44	..	(f) 2,548
Water Trusts—Domestic and Stock Supplies	2,907,871	..	..	..	..	..	..	..	..	..	..	..
Licensed Diversions ..	(e)	..	..	..	..	..	..	..	..	..	..	g 191,782
Total, 1961-62 ..	6,952,579	50,223	57,779	40,273	14,024	522,748	5,097	11,515	18,080	2,784	50,443	d 964,748

(a) Excludes Flood Control Districts and some Irrigation Trusts, particulars for which are not available. (b) Citrus and deciduous. Deciduous amounted to 8,810 acres, of which 8,605 acres were in the Murrumbidgee Irrigation Area. (c) Includes details (except total area) for Licensed Diversions. (d) Includes total area irrigated by Licensed Diversions, but details for individual crops, etc., are not available. (e) Not available. (f) Incomplete. (g) Details for individual crops, etc., are not available.

3. **Irrigation Areas.**—(i) *Murrumbidgee.* (a) *Description.* These areas, together with adjacent lands supplied under agreement, received 379,242 acre feet, or about a quarter of the total water (1,718,325 acre feet) allocated within the State for stock, domestic supply and irrigation. They are served by the Burrinjuck Dam on the Murrumbidgee, 40 miles north-west of Canberra. The catchment above the dam is about 5,000 square miles. The river rises on the high plateau north of Mount Kosciusko where the average annual rainfall exceeds 60 inches. Flow for the irrigation areas and districts is supplemented by unregulated flow from the Tumut River below the dam. The dam also provides town supplies for Gundagai, Wagga, Narrandera, Hay, Balranald, and for towns served by the South-West Tablelands scheme.

Domestic and stock water and water for irrigation are supplied to the Irrigation Districts of Tabbita, Benerembah and Wah Wah, and the Flood Control and Irrigation District of Lowbidgee. Flood flows are relied on to serve the Lowbidgee district, and water is not released from the dam for that purpose. For the other undertakings, however, water is stored during the winter, fed by melting snows and spring freshets, and is released during the September-May irrigation season. It passes along the river channel to Berembend Weir, 240 miles westward, where it is diverted to the main canal with an off-take capacity of 1,600 cubic feet a second. The main canal has been completed to beyond Griffith, 96½ miles from the off-take. Reticulation channels aggregate approximately 900 miles and drainage channels 880 miles. In addition, approximately 440 miles of supply channels run through irrigation districts adjacent to the Murrumbidgee areas in which the water supply is operated and maintained by the Water Conservation and Irrigation Commission.

The land on which the Murrumbidgee Irrigation Areas and associated districts are situated originally comprised large sheep stations and was sparsely populated, but at 30th June, 1962, its population was approximately 29,000, that of Leeton Shire being 10,355 and that of Wade Shire 17,950.

(b) *Administration.* The Water Conservation and Irrigation Commission controls land transactions and water supplies for the Murrumbidgee Irrigation Areas only, and has no jurisdiction over land transactions in the adjacent irrigation districts, although it is responsible for the operation and maintenance of the water supply in these areas. Other local government services, including electricity and town water supply, are provided by Councils. Land is disposed of by the Commission by purchase or under perpetual lease tenure or leased for short terms for grazing or cultivation. The area under occupation at 30th June, 1962, was 407,963 acres, including 36,363 held for short lease grazing, agriculture, etc.

(c) *Production.* The principal products of the Areas are wool, livestock for slaughtering, rice, citrus fruits, peaches and nectarines, grapes, tomatoes, peas, beans and root vegetables. Rice growing was initiated on the Murrumbidgee Irrigation Areas in 1924 and has since become the most important crop. In a normal season, the water supplied for rice represents about half the total delivered to the Murrumbidgee Irrigation Areas.

(ii) *Other Irrigation Areas.* The Coomealla, Tullakool, Buronga, Mallee Cliffs, Hay, Curlwaa and Coleambally Irrigation Areas follow the same administrative pattern as the Murrumbidgee Areas—that is, land transactions are administered by the Water Conservation and Irrigation Commission which is responsible also for the operation and maintenance of works to supply water.

4. **Irrigation Districts.**—These Districts are set up under the *Water Act* for (a) domestic and stock water supply and (b) irrigation. They differ from water trusts in that the cost of the works is not required to be repaid over a period, but annual charges are made by the State for water supplied to landholders.

Since the completion of the Hume Reservoir, several such districts have been established along the Murray to utilize the New South Wales share of the storage. Water is not available for the whole of the 5,000,000 acres adjacent to the Murray in New South Wales, and therefore the schemes are based on "extensive" irrigation, that is, water rights are allotted to holdings on the basis that only a portion of each holding (one acre in three, five or ten, according to the district, etc.) will be irrigated, but additional water, when available, may be obtained by landholders. "Water right" means right to such a quantity annually of water, 12 inches deep, as will cover an area of one acre.

Water to serve Berriquin, Deniboota and Denimein Districts is diverted through a main canal which will be 100 miles long when completed. Water for the Wakool Irrigation District and the Tullakool Irrigation Area is diverted from the Edward River at Stevens Weir, and a supplementary supply is also obtainable from Mulwala canal. At 30th June, 1962, the total length of completed canals and channels in Berriquin District was 996 miles, comprising Mulwala canal 75 miles, Berrigan channel 22 miles, subsidiary channels 782 miles, escape channels 107 miles and cross drainage channels 10 miles. Off-take capacity of the Mulwala canal is 5,000 acre feet a day.

Wakool, with 387 miles of channel, contains 308 holdings and the area developed by irrigation includes about one acre in eight of the total area. Sheep raising is the main industry.

Considerable subdivision has occurred within the Berriquin District and the proportion of the total area developed for irrigation is higher than in the case of Wakool. Sheep (including fat lambs), dairying and wheat growing are the main industries.

**5. Water Trust Districts, Irrigation Trusts and Flood Control and Irrigation Districts.**—The *Water Act* provides for the constitution of Trust Districts for domestic and stock water and irrigation, and empowers the Commission to construct, acquire or utilize necessary works. When the works are completed, they are handed over to trustees to administer. The trustees are elected by the occupiers of the land and act with a representative of the Commission. They are empowered to levy and collect rates covering the cost of the works repayable to the Crown by instalments and also the cost of operation and maintenance of the works. The rates are struck according to the area of land which benefits. The following water trusts—other than irrigation—have been constituted (the area in acres of each district is shown in parenthesis)—*Murray River*—Little Merran Creek (157,440), Tuppal Creek (78,080), Bullatale Creek (68,320), Poon Boon (34,300), Minnie Bend Flood Prevention (2,190); *Murrumbidgee River*—Yanco, Colombo and Billabong Creeks (1,007,780); *Lachlan River*—Marrowie Creek (292,640), Torrigan, Muggabah and Merrimajeele Creeks (170,240), Ulonga (64,960), Micabil Weir (11,500), Condobolin West Weir (4,480); *Miscellaneous*—Great Anabranch of Darling River (959,184), Nidgerly Weir (46,880), Algdudgerie Creek (9,760), Collarenebri town water supply (117)—making in all a total area of 2,907,871 acres. Thirteen of these trusts have been formed for the provision of water for domestic and stock purposes, one for a town supply and one for flood prevention.

Irrigation Trusts are established under the same Act and are administered by trustees in a similar way.

The Lowbidgee Provisional Flood Control and Irrigation District, the first of its kind, was constituted in 1945. Its purpose is to provide flood irrigation for pasture lands on the lower Murrumbidgee by water diverted from the Maude and Redbank Weirs. Another district, Medgun near Moree in the north-west, is also in operation.

**6. River and Lake, and Farm Water Supplies.**—During recent years, the numbers of licences and permits issued to individuals to draw water from rivers and lakes for irrigation have increased substantially, especially along the coastal streams in sub-humid districts where the value of supplementary irrigation is becoming more recognized as a means of stabilizing production in dry months. There has also been a considerable increase along the Murrumbidgee and Lachlan.

The *Farm Water Supplies Act* was passed in 1946. Technical advice and assistance, and also financial assistance, are made available to help individual farmers and groups of farmers to provide and improve water supplies for domestic, stock and irrigation purposes by means of wells, bores, excavated tanks, weirs or dams, flood and spray irrigation systems.

**7. Underground Water.**—Extensive use is made of artesian, sub-artesian, and shallow underground water. The Great Artesian Basin underlies an area of nearly eighty thousand square miles in the northern and western portions. Eighty-seven Bore Water Trusts and 12 Artesian Wells Districts have been constituted. The Bore Trusts are administered in the same way as Water Trusts, but in Artesian Wells Districts settlers maintain the drains. Bore Trusts and Artesian Districts cover over 5 million acres and water is distributed through approximately 8,000 miles of open earth drains. The number of artesian bores giving a flowing or pumping supply at 30th June, 1962, was 1,088 and the estimated total daily flow from approximately 600 flowing bores was 64 million gallons.

Of other structural basins of sedimentary rocks, e.g., Murray, Cumberland (Sydney), Oxley and Clarence Basins, the Murray is the largest and also the most important in that it affords stock water supplies over an extensive area of the south-western section of the State. Only a few of these bores flow, the remainder being sub-artesian. Good supplies for stock

and, in some instances, small scale irrigation, are obtained from porous sandstone in the Moss Vale-Picton area of the south-western lobe of the Cumberland Basin, but the remainder has limited potential. Stock supplies are obtained from bores in the fringe zones of the Oxley Basin, but the centre of this basin lies under the Liverpool range. The Clarence Basin is relatively unimportant from a groundwater viewpoint.

In other parts of the State, the largest and best quality groundwater supplies are obtained from sands and gravels in the alluvium of the major rivers and their tributaries, particularly the western flowing rivers, e.g. Lachlan, Macquarie and Namoi. Supplies of up to 50,000 gallons an hour are obtained from wells and screened bores in these areas and are used for irrigation purposes. The Government is carrying out investigations to determine the groundwater potential of the alluvium of such valleys, particularly with regard to irrigation use, and a test-boring programme is in progress in the Lachlan Valley. Coastal river systems have a much more limited potential in this regard, the main exception being the Hunter.

Old sand dune areas along the coast provide large supplies of good quality water. However, since the soils of these areas are not suited to agricultural pursuits, exploitation has been largely confined to the Sydney and Newcastle areas. Initially a source of Sydney's water supply, the Botany sands are now utilized mainly by industry. The Tomago sands provide a considerable proportion of the Newcastle water supply.

The older rocks, which are mostly folded and jointed, are very variable in their groundwater potential and only rarely do they yield supplies sufficient and suitable for limited irrigation. Where suitable conditions obtain, they yield useful stock supplies, mostly at depths between 50 and 250 feet.

It is necessary under the 1955 amendments to the *Water Act* that all wells and bores be licensed, and details of over 18,500 bores and wells in the State are recorded. When assessed in relation to the geologic and topographic conditions of any particular area, such records provide valuable evidence of the groundwater potential and are thus of considerable benefit to landholders.

**8. Future Programme.**—The programme of post-war development already in hand includes the provision of additional dams and storages, diversion weirs, and flood mitigation and river protection works in various parts of the State. Construction of *Burrendong Dam* on the Macquarie River is in progress. Legislation has been passed authorizing the construction of a flood control and irrigation dam at Warkworth in the Hunter Valley and a storage dam at Blowering on the Tumut River. The Hunter River development, of which Glenbawn Dam is an integral part, concerns an exceptionally fertile coastal valley, forming the hinterland to Newcastle, where the annual rainfall is not heavy and variations from month to month are considerable. This is the first coastal scheme initiated in New South Wales. At Wyangala Dam, on the Lachlan River, the fixed crest of the dam spillway has been lowered temporarily to enlarge the spillway for passage of greater floods. Construction has commenced on a new earth and rock fill dam which will be built behind the present dam to give a storage of 1,000,000 acre feet. Within the new Coleambally Irrigation Area further development of farms has been carried out and water is being supplied by the new diversion weir at Gogeldrie. At the 30th June, 1962, 54 large area farms and 8 horticultural farms had been allotted south of the Murrumbidgee River, whilst 47 large area farms had been allotted north of the river and now form part of the Murrumbidgee Irrigation Areas.

**9. Hydro-electricity.**—A survey of the use of water for power generation in New South Wales may be found in the previous chapter (*see* p. 253).

### § 3. Victoria

**1. General.**—(i) *Rainfall.* Particulars of the rainfall pattern of Victoria were given on page 1117 of Official Year Book No. 37. (*See also* Chapter II. Physiography, p. 45, of this Year Book.)

(ii) *Administration.* The passing of the *Irrigation Act* of 1886 put the control of surface waters under the Crown, provided for the establishment of Irrigation Trusts and marked the beginning of irrigation development. In 1905, the *Water Act* established the State Rivers and Water Supply Commission and gave it control of all irrigation, rural domestic and stock supplies, town water supplies, and flood protection and drainage undertakings outside the Metropolitan area, with the exception of the irrigation area operated by the First Mildura Irrigation Trust and the town water supplies operated by locally constituted waterworks trusts or local governing bodies.



The operations of the First Mildura Irrigation Trust, the waterworks trusts and local governing bodies administering town water supplies, the river improvement and drainage trusts and the various sewerage authorities which control sewerage undertakings in country towns are also subject to general supervision by the Commission.

**2. Works Summarized.**—In 1902, a great drought emphasized the need for a concerted attack on water problems. Subsequently to the establishment of the State Rivers and Water Supply Commission, the total capacity of storages controlled by that Commission has increased from 172,000 to 4,263,618 acre feet at 30th June, 1962. In addition, Murray River storages with a combined capacity of 2,722,840 acre feet are shared equally by New South Wales and Victoria under the River Murray Waters Agreement, subject to certain obligations to South Australia. The total storage capacity available to Victoria is thus some 5,625,038 acre feet. Most of the water from these storages is used for irrigation. The area actually irrigated has risen from 105,000 acres in 1906 to 1,117,900 acres in 1961–62, to which 1,744,473 acre feet of water were delivered. The Commission estimated the value of irrigated production in 1960–61 at £61,125,000, representing about one-sixth of the value of Victoria's total rural production.

Besides supplying water to its own irrigation districts, the Commission supervises the diversion of water for irrigation by private persons by means of licences and permits. In the last ten years, the area so licensed has doubled and private diverters now provide a fifth of total irrigation production.

**3. Storages.**—The capacities of the main storages in the various systems (in acre feet) at 30th June, 1962, were as follows:—

*Goulburn System:*—Eildon Reservoir, 2,750,000; Waranga Reservoir, 333,400; Total, 3,104,100; *Murray-Loddon System:*—Half share of Murray River storages, 1,361,420; Cairn Curran, 120,600; Tullaroop, 60,000; Total, 1,690,230; *Wimmera-Mallee:*—Rocklands, 272,000; Total, 563,800; *Gippsland:*—Glenmaggie, 154,300; Total 154,340; *Coliban:*—62,730; *Werribee-Bacchus Marsh:*—34,900; *Mornington Peninsula:*—5,800; *Otway:*—1,080; *Miscellaneous:*—8,058; *Grand Total:*—5,625,038.

**4. Extent of Systems and Nature of Irrigated Culture.**—The following table shows the areas of the various irrigation systems in 1961–62, and the areas under irrigated culture during the seasons 1957–58 to 1961–62.

#### AREAS OF SYSTEMS AND OF LAND IRRIGATED: VICTORIA

(Acres)

(Source: State Rivers and Water Supply Commission)

Season and system	Total area (a)	Area irrigated									
		Cereals	Fodder crops		Pastures		Vine- yards	Orch- ards	Market gardens	Fallow and miscel- laneous	Total
			Lucerne	Other	Sown	Natural					
1957-58 .. ..	2,150,449	30,348	42,611	19,488	721,291	80,645	44,283	32,802	19,816	10,516	1001800
1958-59 .. ..	2,149,466	9,436	38,752	15,228	716,951	72,802	44,267	35,349	18,595	14,386	965,766
1959-60 .. ..	2,115,542	26,426	41,698	13,883	774,268	73,340	43,778	39,612	20,628	19,149	1052782
1960-61 .. ..	2,188,136	7,940	39,872	10,239	754,323	67,014	44,817	40,274	21,735	20,966	1007180
1961-62—											
Goulburn-Loddon ..	1,289,515	17,004	17,732	8,993	402,200	24,507	309	22,731	3,635	9,354	506,465
Murray—											
Torrumbarry ..	341,012	7,132	4,611	3,345	182,771	25,964	4,287	1,904	1,310	3,461	234,785
Murray Valley Irri- gation Area ..	274,155	1,276	7,064	1,216	91,571	2,668	41	5,689	499	479	110,503
Pumping(b) ..	80,761	..	349	206	595	300	36,596	3,029	279	624	41,978
<i>Total</i> .. ..	<i>695,928</i>	<i>8,408</i>	<i>12,024</i>	<i>4,767</i>	<i>274,937</i>	<i>28,932</i>	<i>40,924</i>	<i>10,622</i>	<i>2,088</i>	<i>4,564</i>	<i>387,266</i>
Other Northern Sys- tems(c) .. ..	19,735	303	1,623	..	11,347	696	..	3,456	723	..	18,148
Southern Systems ..	146,798	132	1,351	548	60,459	2,779	..	616	5,694	246	71,825
Private Diversions(d) ..	(e)	1,739	8,523	2,160	81,982	12,591	3,330	5,246	10,057	8,568	134,196
<b>Total, 1961-62</b>	<b>2,151,976</b>	<b>27,586</b>	<b>41,253</b>	<b>16,468</b>	<b>830,925</b>	<b>69,505</b>	<b>44,563</b>	<b>42,671</b>	<b>22,197</b>	<b>22,732</b>	<b>1117900</b>

(a) Excludes Private Diversions and Northern Systems other than Campaspe District. (b) Includes First Mildura Irrigation Trust. (c) Area of Campaspe District only. (d) Excludes private diverters in the Torrumbarry System, but includes all other private diverters along the Murray River. (e) Not available.

5. *Irrigation Systems.*—(i) *Goulburn.* The storage capacity for this system is provided principally by Eildon Reservoir. The enlargement of the storage capacity of this reservoir was completed in 1956, enabling 600,000 acres to be irrigated when the necessary distributary works are completed. Water from Eildon Reservoir flows down the Goulburn River to the Goulburn Weir, located near Nagambie. This raises the summer level of the river about 45 feet for the purpose of diversion. From this weir, water is diverted via the East Goulburn Main Channel direct to the irrigation areas around Shepparton. The western main channels from the weir convey water to the Waranga Reservoir near Murchison in addition to supplying part of the large Rodney area directly.

Two main outlet channels issue from Waranga Reservoir. One serves the western section of Rodney area while the other serves irrigation areas as far west as Boort, and continues into the Wimmera-Mallee domestic and stock system to provide a supplementary supply as far as Beulah East (*see para. 6, below*).

Water is also supplied to part of the Goulburn system from Cairn Curran Reservoir on the Loddon River, and from Tullaroop Reservoir on one of its tributaries. Eildon itself may be used to supplement supply to the districts along the Murray River.

The main products of the Goulburn system are dairy produce, fruit, wool and fat lambs. Annual production of deciduous canning fruits in the area is about two-thirds of Australia's total.

(ii) *Murray River System.* The waters of the Murray River are used to supply the area between Yarrawonga and Merbein. The districts between Yarrawonga and Swan Hill, except Tresco near Swan Hill, are supplied by gravitation and those west of Swan Hill by pumping.

The main items produced in the Murray Valley Irrigation Area, which is served from Yarrawonga Weir, are dairy products, fat lambs and canning fruit.

The gravitation system based on Torrumbarry Weir (52 miles downstream from Echuca) serves the area around Cohuna, Kerang, Koondrook and Swan Hill. (Also included in the Torrumbarry System is the Tresco District supplied by pumping from Lake Boga.) Dairying and fat lamb raising are the major industries. Vine fruits and vegetables are grown around Swan Hill, and tobacco growing is increasing in importance.

West of Swan Hill lie four Commission districts with a pumped supply—Nyah, Robinvale, Red Cliffs and Merbein. These contain about 1,500 holdings devoted mainly to dried vine fruit, although citrus fruit and table and wine grapes are of some importance. The area around Mildura is controlled by the First Mildura Irrigation Trust, the only irrigation trust operating in Victoria. It serves an irrigated area about half the combined size of the four Commission districts and has similar major products.

(iii) *Southern Systems.* The most important southern system is the area around Maffra and Sale, devoted mainly to dairying. This is supplied from Glenmaggie Reservoir on the Macalister River and from the natural flow of the Thomson River when the flow is adequate. Other important irrigation districts are located quite close to Melbourne around Werribee and Bacchus Marsh. These districts are intensively developed for dairying and vegetable growing.

6. *Wimmera-Mallee Domestic and Stock Supply System.*—This system serves an area of 11,000 square miles or about one-eighth of the State. Without the artificial supply of water, development in this area would be meagre and hazardous owing to the constant threat of drought. The main supply is drawn from the Grampians storages and can be supplemented by water drawn from the Goulburn and Loddon Rivers, via the Waranga Western Channel referred to previously. Works in progress will make the Wimmera and Mallee independent of supplies from the Goulburn and Loddon Rivers in the near future. In addition, certain areas in the north of the system are supplied direct from pumps on or near the Murray River.

As far as possible, water is distributed in the winter and spring to reduce evaporation losses in 6,500 miles of Commission channels and 3,000 miles of farm channels. It is the responsibility of the 7,000 farmers served to provide sufficient storage capacity on their farms to meet their domestic and stock needs for the year. In addition to meeting rural and domestic demand, together with stock requirements, the Grampians storages provide a water supply for more than 40,000 people in 47 towns and are used to irrigate a small area near Horsham.

7. *Town Water Supplies and Sewerage.*—Details of the operations of the State Rivers and Water Supply Commission with respect to water supplies and sewerage for country towns and local government authorities are given in Chapter XIX. Local Government, of this Year Book.

**8. Drainage, Flood Protection and River Improvement.**—The largest work in this category undertaken by the State Rivers and Water Supply Commission is the Koo-wee-rup-Cardinia flood protection district embracing 80,000 acres of a continuous depression along the seaboard of Westernport. Once useless, indeed a hindrance to communication, this area now yields primary products worth several million pounds each year.

By the *River Improvement Act* 1948, the formation of local river improvement and drainage trusts under the supervision of the Commission has been greatly facilitated, and since 1950, 20 such trusts have been formed. The importance of river improvement work is expected to continue to grow.

**9. Finance.**—The capital liability of the Commission at 30th June, 1962, was £108 million. Of this amount, nearly £75 million were expended on irrigation and £8 million on domestic and stock supply systems. Both these amounts were financed entirely by the State. The total liability for urban supply was £15.5 million, of which 53 per cent. was borne by the State and the remainder by the districts concerned. The remaining £9.5 million were due for expenditure on flood protection and drainage (£2 million) and items such as loan flotation expenses, surveys and investigations, and buildings, plant and stores (£7.5 million).

**10. Underground Resources.**—A survey of these resources is being carried out by the Victorian Department of Mines. Their deep drilling plant has located suitable water for town supplies at Portland, Heywood, Port Fairy, Timboon and Petersborough during exploration to 5,500 feet in the Western District basin. Other drilling plants are engaged in other parts of the State, and up to date over 100 wells have been successfully completed.

The Murray Artesian Basin underlies an area of 107,000 square miles, of which 27,000 square miles are in Victoria, 28,000 square miles in South Australia and 52,000 square miles in New South Wales. The quality of the water varies, and is suitable for domestic purposes in much of the south-western part of the basin in Victoria, but elsewhere is suitable only for limited stock use. Maximum depth of development of underground water in Victoria is approximately 4,500 feet. Some individual bores can yield up to 2,000,000 gallons a day. In the last few years, the Department of Mines has expanded considerably the work of exploration for underground water.

**11. Future Programme.**—The main work under construction is the enlargement of the channels of the Goulburn system to distribute the extra water now available from Eildon, Cairn Curran and Tullaroop Reservoirs. A considerable amount of this work has already been carried out. Other large projects under construction are the enlargement of Eppalock Reservoir on the Campaspe River to a capacity of 250,000 acre feet and a new storage on Devilbend Creek for the Mornington Peninsula area. Approved works for future construction include Lake Bellfield on Fyans Creek (Grampians Mountains) and a storage on the Buffalo River.

## § 4. Queensland

**1. General.**—(i) *Rainfall.* Particulars of the rainfall pattern of Queensland are given in Official Year Book No. 37, page 1122. (See also Chapter II. Physiography, page 45, of this Year Book.)

(ii) *Administration.* In Queensland, the right to the use and flow of non-tidal surface water contained in, or flowing through or past, the land of two or more occupiers, and all artesian and sub-artesian water vests in the Crown. Subject to certain reservations for Local Authority and other purposes, such water is controlled by a Commissioner of Irrigation and Water Supply.

For a description of the development of the present administration, see Official Year Book No. 42 and earlier issues.

(iii) *Water Utilization.* In Queensland, private diversions from watercourses, artesian wells, and in certain declared areas, sub-artesian wells, are subject to licence by the Commissioner. Dams and weirs are constructed by the Commissioner to safeguard supplies in streams from which private pumping for irrigation takes place, and also to provide water for irrigation areas established by the Commissioner.

**2. Irrigation.**—(i) *General.* Irrigation as a means of stabilizing and increasing agricultural production continues to receive attention in Queensland. As a large portion of Queensland is tropical, the State's crops differ considerably from those of other States.

Sugar cane is the greatest individual crop, representing in value about half of the total agricultural production. In 1961-62, approximately 15 per cent. of the sugar cane acreage was irrigated. This represented about 36 per cent. of the total irrigated area in Queensland. Queensland is also Australia's major tobacco-producing State, and plans are in hand to increase greatly the annual production of this crop by means of development under irrigation. The area of tobacco irrigated during 1961-62 represented 90 per cent. of the total plantings of this crop in the State.

Most irrigation in Queensland is undertaken by private farmers operating under licence to obtain water by pumping from streams or from natural underground storages. During recent years, there has been considerable development of individual water conservation projects (water harvesting) to provide storage for irrigation of pastures, fodder crops and small crops, and orchards. Where available, electricity is the most popular source of power for pumping, and the principal areas supplied with electricity are the Burdekin Delta, the Lockyer Valley, and the Darling Downs.

It has been estimated that about two-thirds of the total area irrigated in Queensland is supplied from underground water. The main areas where these supplies have been developed extensively are the Burdekin Delta (Ayr-Hill area), the Pioneer Valley, Callide Valley, Lower Burnett (Bundaberg area), Lockyer Valley and Redland Bay. Similar development is taking place in other areas such as parts of the Darling Downs.

Furrow irrigation is used for cotton, sugar cane, most tobacco and some other crops. Spray irrigation is used widely on fruit, vegetables, fodder crops and a small part of the tobacco crop. Spraying is well suited for the application of water on deep soils by small pumping plants, particularly when the quantity of water available is limited. Use of the border check method in the irrigation of pasture and fodder crops has proved successful.

The following table shows the number of irrigators and the areas irrigated for the years ended 31st March, 1958 to 1962, and for each division for the year ended 31st March, 1962.

#### AREA OF LAND IRRIGATED: QUEENSLAND

Season and division	No. of irrigators	Area irrigated (acres)							
		Vegetables	Fruit	Sugar-cane	To-bacco	Cotton	Other crops	Pastures	Total
1957-58 .. ..	7,296	28,187	4,585	69,980	6,881	640	40,123	9,949	160,345
1958-59 .. ..	7,149	26,597	4,876	65,613	7,490	1,520	38,135	10,402	154,633
1959-60 .. ..	6,889	27,207	5,212	62,346	9,256	2,579	36,115	9,421	152,136
1960-61 .. ..	7,839	29,698	5,758	68,987	12,066	2,675	51,862	15,651	186,697
1961-62—									
Southern Queensland ..	5,873	26,338	5,146	19,249	2,786	432	48,099	15,121	117,171
Central Queensland ..	648	1,014	299	40	36	1,510	8,397	2,525	13,821
Northern Queensland ..	1,912	4,787	1,092	55,252	10,849	98	3,451	2,898	78,427
<b>Total, 1961-62 ..</b>	<b>8,433</b>	<b>32,139</b>	<b>6,537</b>	<b>74,541</b>	<b>13,671</b>	<b>2,040</b>	<b>59,947</b>	<b>20,544</b>	<b>209,419</b>

The pattern of irrigation in Queensland is unlike that in southern States. The spring to autumn "irrigation season" of the temperate southern irrigated lands is not applicable, as round-the-year irrigation is required throughout most of the State, the timing and duration of the summer "wet" season being too variable to enable a definite non-irrigation season to be fixed.

Two of the more important areas of development by irrigation by private pumping are the Lockyer Valley and Burdekin River Delta.

(a) *Lockyer Valley.* West of Brisbane and within 30 miles of that metropolitan market is the Lockyer Valley, which is portion of the Brisbane River Basin. The valley comprises an extensive flood plain where heavy black alluvial soil thickly overlies gravels and sands carrying water suitable for irrigation. Despite a mean annual rainfall of 30 inches, the variation is great, and irrigation is necessary for continuous agricultural production. Surveys suggest that of some 60,000 acres of land highly suitable for irrigation only about a third is under irrigation. Most of the farmers operate electric pumps for irrigation purposes, and a special policy designed to encourage such development is fostered by the Southern Electric Authority of Queensland. The Irrigation and Water Supply Commission has constructed a number of small weirs on Lockyer Creek with a total storage of

1,370 acre feet. These also tend to augment and conserve underground supplies. The Irrigation Research Station established at Gatton has been converted to a Regional Experimental Farm under the control of the Department of Agriculture and Stock.

The Lockyer Valley produces a substantial proportion of Queensland's onions, potatoes, pumpkins, lucerne, hay, green fodder, maize and dairy products.

(b) *Burdekin River Delta.* The Burdekin River, which enters the sea between Townsville and Bowen, is a major factor in the life of north Queensland. In most years, heavy floods from a catchment twice the size of Tasmania cause extensive damage and traffic disruptions. On the other hand, the fertile delta area, with its underground water supplies at shallow depth, has contributed greatly to the agricultural prosperity of north Queensland. The average annual rainfall of this area is some 41 inches, but the major part falls in the months December to March. Consequently, sugar growers and other farmers have tapped the underground water resources of the delta to obtain supplies in the dry periods. Sugar is the main crop irrigated, together with citrus fruits, pineapples, vegetables and tobacco. The irrigated area is in excess of 30,000 acres, up to 1,000 acre feet of water being drawn daily from underground sources.

In the Home Hill-Inkerman areas on the south side of the Burdekin, water is obtained from shallow wells by electric pumps supplied from a local power station controlled by the Townsville Regional Electricity Board. Around Ayr, on the north side of the river, electric power from the mains of the Townsville Regional Electricity Board is now being used in place of individual internal combustion engines. At both Home Hill and Ayr, water for domestic supply is raised by a windmill on each property.

In 1940, the Burdekin River Trust was formed to safeguard the sugar areas of the delta from erosion and floods. An irrigation research station studies the development of pastures and irrigated crops under local conditions.

(ii) *Government Projects.* The Irrigation and Water Supply Commission has constructed and operates two dams and forty-one weirs with a storage capacity of 452,776 acre feet. Water from these storages supplies four irrigation areas operated by the Commission and supplements numerous streams from which pumping for private irrigation takes place.

(a) *Mareeba-Dimbulah Irrigation Area.* The large areas of sandy soils in the valleys of the Walsh and Barron Rivers in the neighbourhood of Mareeba and Dimbulah are suitable for tobacco production, and in 1952 an irrigation undertaking was established.

Construction of Tinaroo Falls Dam on the Barron River has been completed, and construction of irrigation works which will serve a total of 78,000 acres is proceeding. Of this area, 49,000 acres will be irrigated. It is expected that 910 tobacco farms and 180 mixed farms will be served. While tobacco will be the basic crop, peanuts, vegetables, maize, cotton and stock fattening also appear suitable. One hundred and twenty-nine miles of channels have been constructed, and irrigation water from Tinaroo Falls Dam is available to 386 farms.

In 1961-62, the value of tobacco leaf sold was £5.4 million from 465 farms.

(b) *Burdekin River Irrigation Area.* While construction of the major part of the Burdekin River Irrigation, Hydro-electric and Flood Mitigation Project has been deferred indefinitely, three schemes associated with the Project have been completed. These are the Irrigation Areas of Cläre (constituted in 1949), Millaroo (1952) and Dalbeg (1953), all of which are at present used predominantly for tobacco production. Located from 25 to 65 miles upstream from the mouth of the Burdekin, these areas comprise 18,862 acres, and obtain irrigation waters from central pumping stations drawing on the flow of the Burdekin. A temporary storage of 7,670 acre feet capacity has been constructed about 79 miles upstream from the mouth of the Burdekin to augment supplies. At 30th June, 1962, 149 farms were occupied, and total production for 1961-62 was valued at £572,264.

(c) *Dawson Valley Irrigation Area.* A scheme for the development of the Dawson Valley providing for the irrigation of 70,000 acres was inaugurated in 1923. Much investigational and survey work on the scheme was carried out, but the general financial depression and limited loan funds brought about the cessation of the work. However, the initial step in construction was completed, comprising a weir on the river at Theodore and irrigation works to serve an area of 3,500 acres supplied from a central pumping station. Two additional weirs have since been built, giving a total storage of 10,280 acre feet and covering

some 61 farms in production, returning an estimated £256,000. Pasture, vegetables, cotton, fruit and dairy products are the principal produce. Recently, further attention has been given to the former plans for the valley, and earlier work has been under close scrutiny as a prelude to future development. Construction of works to serve some 2,400 acres at Gibber Gunyah, adjacent to the existing Theodore area, has been completed, and 17 farms have been occupied. These farms have been increased in size by the addition of dry areas and by some readjustment of boundaries.

(d) *St. George Irrigation Area.* The St. George irrigation area comprises 19 farms engaged mainly in raising fat lambs in conjunction with irrigated pastures. Water supply for the area is obtained by pumping from the combined weir and road bridge on the Balonne River at St. George.

(e) *Warrill Valley Project.* Moogerah Dam on Reynolds Creek (a tributary of Warrill Creek) is of double curvature thin arch construction 105 feet high to spillway crest level, and will serve some 11,000 acres of the Valley by private diversion of water released from its 73,000 acre feet storage into Reynolds and Warrill Creeks.

(f) *Mary Valley Project.* The construction by contract of Borumba Dam on Yabba Creek is proceeding satisfactorily. This is a rockfill structure with an upstream impermeable concrete membrane 144 feet high above stream bed. In its initial stage, storage capacity will be 34,500 acre feet with provision for later increase to 80,000 acre feet. In its first stage, water released from the dam will be available to maintain the town water supply for Gympie, and will allow extension of the area irrigated by private diversion from the Mary River to some 18,000 acres.

(g) *Upper Condamine Project.* Work has commenced on the construction of Leslie Dam on Sandy Creek, a tributary of the Condamine River. This will be a mass concrete gravity dam 95 feet above foundation level. In its initial stage, storage capacity will be 38,500 acre feet with provision for later increase to 87,000 acre feet. Water released from the dam will be available for irrigation of sections of the Darling Downs downstream the Condamine River as far as Cecil Plains. In addition, the city of Warwick will be supplied by pipeline from Leslie Dam.

(h) *Border Rivers Project.* The development of the rivers constituting portion of the border between Queensland and New South Wales is under the authority of the Dumaresq-Barwon Border Rivers Commission on which each State is represented. For information on the project see page 279.

3. *Great Artesian Basin.*—(i) *General.* Western Queensland, beyond the 20 inch rainfall belt, is predominantly pastoral and is mainly dependent for water supplies on artesian and sub-artesian bores and, where surface storage is not readily available, on excavated tanks. The Great Artesian Basin in Queensland corresponds approximately with the area lying west and south of the Great Dividing Range, excluding the Cloncurry mineral field and the Barkly Tableland. It comprises 430,000 square miles or about two-thirds of the total State area of 667,000 square miles.

(ii) *Artesian Water.* Although the number of bores has gradually increased over the years, the total flow of all bores has declined since the peak flow of 351 million gallons a day. A report on the nature and structure of the Great Artesian Basin, presented in 1954, indicated that the output would continue its decline during the next sixty years, at which stage the flow from the remaining flowing bores would be of the order of 110 million gallons a day. The discharge from windmills, springs and other leakages, together with the underflow past the Queensland borders, would then be about 20 million gallons a day. It was further expected that the total discharge, of the order of 130 million gallons a day, would be in equilibrium with the recharge of the basin. It was anticipated that numbers of bores on higher ground would cease to flow during the next sixty years and the area served by the flowing bores would contract by perhaps twenty per cent.

Up to 30th June, 1962, 2,776 artesian bores had been drilled, of which 1,874 were still flowing. The total depth drilled amounted to 3,905,298 feet and the estimated daily flow was 208 million gallons. Although very few bores exceed 2,000 feet in depth (the average depth is 1,407 feet) and a new bore greater than 3,000 feet deep is exceptional, the deepest bore recorded was sunk to 7,009 feet. Some bores which had been classified as "ceased" have been inspected and found to be still flowing, while other ceased bores have responded to deepening and have recommenced flowing. Both the pressure and flow of artesian bores are steadily diminishing, the rate of decrease varying widely throughout the basin. Present

average rates of diminution are:—pressure 1–2 feet/head; total flow 2–3 per cent. per annum. The greater part of the artesian discharge is distributed by some 15,500 miles of open earth channels, from which a large proportion of the water is lost by soakage and evaporation, less than 10 per cent. being actually used by stock.

Although artesian beds underlie a large area of the State, only 79,000 square miles are primarily watered by bore drains. The remaining area is watered by artesian bores (with small or no flow and limited drains), sub-artesian bores, excavated tanks, dams and natural waterholes. In many districts, artesian bores do not provide economical watering facilities because of depth, limited area to be watered, and difficult terrain for distribution of water by drains. The quality of artesian water from the greater part of the basin is not suited for prolonged use for irrigation on most soils, nor are the supplies sufficient for both large scale irrigation and stockwatering. Practically the whole of the final steady-rate discharge from flowing bores will be needed for the watering of stock.

Shallower supplies, which come from beds unconnected with artesian beds, are of variable quality and volume. These supplies are available at depths of less than 1,000 feet over a large area of the basin. Some 10,656 sub-artesian bores, within the Great Artesian Basin, have been registered in Queensland. An important practical consideration is that the main artesian beds are continuous and the sub-artesian beds are not continuous.

Detailed surveys of numerous other sources of underground water in the State, such as the smaller sedimentary basins, the Cainozoic alluvial deposits, recent coastal sands and fractured older rocks, still largely remain to be carried out.

(iii) *Bore Water Areas.* The constitution of Bore Water Areas was inaugurated in 1913 to aid pastoral settlement in districts where large flows were available at a cost beyond individual capacity, and to conserve artesian supplies by fully utilizing flows from the existing bores on the land resumed for closer settlement. Bores and drains are constructed from loan funds repayable over a period of years. The areas are administered by local boards or by the Commissioner of Irrigation and Water Supply, acting as a board. Rates are levied to meet interest, redemption, maintenance and administration costs. Statistics for the year 1961–62 are:—areas constituted, 73; administered by the Commissioner, 55; administered by local boards, 6; number abolished, 12; area benefited, 4,107,637 acres; average rate per acre, 1.27d.; number of flowing bores, 57; total flow, 26,544,000 gallons a day; drains served, 2,678 miles.

4. *Other Basins.*—Two major areas bordering the Great Artesian Basin in Queensland carry artesian water. One is located on the western slopes of Cape York Peninsula and the other in the Dawson-Mackenzie River (Bowen) Basin.

Groundwater supplies from the Barkly Basin, which extends into western Queensland from the Northern Territory, are referred to in the section dealing with the Northern Territory.

5. *Non-artesian Sources.*—The Irrigation and Water Supply Commission and Geological Survey, in addition to siting numerous bores for shallow groundwater, has been carrying out systematic detailed investigations of areas of river and coastal alluvium. Many of these areas are favourably situated for recharge and are hence capable of supporting relatively large groundwater drafts for their limited areal extent. Among the most important of these is the Burdekin delta in the sugar-cane growing area of Queensland. In the delta, groundwater is used extensively for irrigation.

6. *Stock Watering.*—(i) *General.* A predominant interest in the field of water conservation has been the provision of stock and domestic water supplies in Queensland's great pastoral areas, which contain more than a third of the Commonwealth's cattle and about a seventh of the sheep. In addition to the stabilization of water supplies in the pastoral areas, the provision of water along stock routes for travelling stock has received much attention in recent years.

(ii) *Main Stock Routes.* The Queensland Irrigation and Water Supply Commission acts as consultant and constructing authority to the Stock Routes Co-ordinating Board for watering facilities on stock routes. On completion, facilities are vested in local authorities for control and maintenance. From 1935, when the scheme was inaugurated, to 30th June, 1962, 567 facilities had been completed, and at 30th June, 1962, 46 facilities were under construction or investigation. A State-wide investigation is being carried out by the two authorities mentioned above to ascertain the general movement of stock, determine primary and secondary routes, register existing water facilities, and formulate a co-ordinated plan in regard to the provision of new watering facilities.

(iii) *Channel Country Stock Routes.* Under *The State Grants (Encouragement of Meat Production) Acts 1949-1954*, the Commonwealth Government has agreed to meet half the cost of providing additional watering facilities in stock routes leading into, along, and out of, the Channel country and on the route from Camooweal to Mount Isa. These routes connect with the main far-western route included in the State scheme inaugurated in 1935.

At 30th June, 1952, 41 watering facilities at an estimated cost of £300,000 had been proposed, and by 30th June, 1962, 37 had been completed.

**7. Technical and Financial Assistance to Farmers.**—The *Farm Water Supplies Assistance Act* of 1958 is designed to improve the standard of water supply installations on individual holdings, encourage greater development of individual irrigation schemes, and provide greater stability of production and avoid losses in time of drought together with generally increasing production.

To achieve this purpose, the Act authorizes the provision of technical and financial assistance to landowners for the investigation, design and installation of approved works of farm water supply. All projects for which finance is provided under the Act are carried out under Commission supervision, and for the payment of a small charge the Commission will supervise the construction of works designed by its staff, but for which the landowners do not require financial assistance under the Act.

During 1961-62, 1,000 requests (765 for technical assistance only, and 235 for technical and financial assistance) were dealt with in addition to advice on a further 468 requests on groundwater supplies. An amount of £239,998 was approved for advances under the Act in 1961-62.

**8. Hydro-electricity.**—An outline of hydro-electricity schemes operating in Queensland is given in the previous chapter (*see p. 258*).

## § 5. South Australia

**1. General.**—(i) *Rainfall.* Brief particulars of the climatic conditions in South Australia are given on page 1129 of Official Year Book No. 37. (*See also* Chapter II. Physiography, page 45, of this Year Book.)

(ii) *Administration.* Water supplies, other than irrigation works, are under the control of the Engineering and Water Supply Department, which administers the *Waterworks Act* governing the supply of water through mains in water districts for townships and farm lands. The *Water Conservation Act* provides for the construction of storages in non-reticulated areas, and authorizes the Minister concerned to "divert and impound the water from any streams or springs or alter their courses, and take water therefrom, or any other waters as may be found in, under, or on, any land entered upon for the purpose of supplying water to the inhabitants of any water district".

(iii) *Methods of Catchment and Conservation.* Early in the history of the State, the rights to all running streams, springs and soaks were vested in the Crown. The *Water Conservation Act* was passed in 1886 and, up to 30th June, 1962, more than 550 dams, tanks and rainsheds, together with 460 wells and 340 bores, had been built or acquired by the State at a total cost of £1,774,900. The rainsheds are timber frameworks roofed with galvanized iron to collect rainfall which is delivered to storage tanks and is available for surrounding settlers and travellers. Rainshed catchments vary from a few hundred square feet to four acres in extent. Over most of the State, extraordinary precautions are taken to counteract evaporation, and pipelines in preference to open channels and covered storages are used for this purpose. Meters are attached to practically all services to check usage by individual consumers.

**2. Irrigation.**—Australian irrigation originated in the upper Murray of South Australia and the Mildura area of Victoria. South Australian irrigation commenced with an agreement between the Government and the Chaffey brothers in 1887 whereby an area of land at Renmark was made available for the establishment of certain irrigation works. In South Australia, irrigation is almost exclusively confined to the Murray Valley. Except for that held in various lock pools, no water from the Murray is stored in South Australia. Water is either pumped onto the land or gravitated from the river.



The two major authorities administering irrigation areas are the Department of Lands and the Renmark Irrigation Trust. The Trust is controlled by a local board of management consisting of seven members. This area differs from other South Australian irrigation areas in that the land is freehold instead of leasehold and is self-contained and self-controlled. Every settler is entitled to vote for the election of Trust members. The Trust maintains 100 miles of reticulation channels.

The following table shows particulars of the areas of crops and pastures irrigated in South Australia during the seasons 1957-58 to 1961-62.

### AREA OF LAND IRRIGATED: SOUTH AUSTRALIA

(Acres)

Season and authority				Vine fruits	Tree fruits	Citrus fruits	Other crops(a)	Pastures	Total
1957-58	..	..	..	25,443	19,578		17,773	18,059	80,853
1958-59	..	..	..	25,389	20,795		26,372	12,525	85,081
1959-60	..	..	..	26,014	22,315		33,183	19,387	100,899
1960-61	..	..	..	26,071	22,706		34,198	19,048	102,023
1961-62—									
Department of Lands—									
Orchard land—									
Berri	..	..	..	4,986	1,191	1,417	..	..	7,594
Cadell	..	..	..	528	194	137	..	..	859
Waikerie	..	..	..	1,785	687	1,375	..	..	3,847
Cobdogla	..	..	..	4,126	229	315	..	..	4,670
Moorook	..	..	..	326	154	220	..	..	700
Kingston	..	..	..	185	79	237	..	..	501
Mypolonga	..	..	..	..	265	507	..	..	772
Chaffey-Ral Ral Division	..	..	..	794	219	16	..	..	1,029
War service land settlement—									
Cooltong Division	..	..	..	380	247	490	..	..	1,117
Loxton area	..	..	..	3,125	1,079	2,266	..	111	6,581
Loveday Division	..	..	..	255	39	36	..	..	330
Reclaimed swamp land—									
Monteith	..	..	..	..	..	..	..	994	994
Mypolonga	..	..	..	..	..	..	..	1,312	1,312
Wall	..	..	..	..	..	..	..	512	512
Burdett	..	..	..	..	..	..	..	109	109
Mobilong	..	..	..	..	..	..	..	429	429
Long Flat	..	..	..	..	..	..	..	338	338
Neeta	..	..	..	..	..	..	..	561	561
Pompoota	..	..	..	..	..	..	..	425	425
Cowirra	..	..	..	..	..	..	..	571	571
Jervois	..	..	..	..	..	..	..	3,639	3,639
<b>Total</b>	..	..	..	<b>16,490</b>	<b>4,383</b>	<b>7,016</b>	..	<b>9,001</b>	<b>36,890</b>
Renmark Irrigation Trust				5,366	2,477	1,000	457	..	9,300
Private landowners				5,311	10,360		36,196	10,343	62,210
<b>Total, 1961-62</b>	..	..	..	<b>27,167</b>	<b>25,236</b>		<b>36,653</b>	<b>19,344</b>	<b>108,400</b>

(a) Includes fodder and fallow land.

3. **Water Supply Schemes.**—(i) *Adelaide Metropolitan Water Supply.* Adelaide derives its water from five reservoirs in the nearby Mount Lofty Ranges, and by means of pumping stations and a pipeline from the Murray River at Mannum. The reservoirs have a storage capacity of 69,663 acre feet and the pipeline has a capacity of 65,000 acre feet a year.

A concrete arch dam is nearing completion at Myponga, which will provide an additional capacity of 22,000 acre feet in 1962–63 to serve areas south of Adelaide. To the north, the new city of Elizabeth receives water from South Para Reservoir in the Barossa system and from the metropolitan storages. The consumption for the whole area for the year 1961–62 was 96,107 acre feet, equivalent to a consumption of 112 imperial gallons per head per day. The capital cost to 30th June, 1962, was £40,303,256.

(ii) *Country Reticulated Supplies.* Areas extending to a distance of 90 miles north of Adelaide are supplied from the Warren, Barossa, and South Para Reservoirs (50,350 acre feet) in the Barossa Ranges. Agricultural towns and areas further north are supplied from Beetaloo, Bundaleer and Baroota Reservoirs, and the Morgan-Whyalla Pipeline. There is a supplementary supply from the Mannum-Adelaide pipeline through the Warren Reservoir. The 223-mile pipeline from Morgan to Whyalla can remove up to 10,000 acre feet of water a year from the Murray River. Work is commencing on a second main of more than double the capacity. A large part of Eyre Peninsula is supplied through the 240-mile Tod River Main and the 104-mile East Coast Main, with water from the Tod River reservoir (9,160 acre feet), the sand beds of the Uley-Wanilla Basin, and the newly developed Lincoln Basin. Along the Murray River, all towns are supplied from the river. Water from the river is also reticulated through adjacent farmlands for up to 30 miles. Surface and underground resources have been developed to supply most rural centres not covered by the larger schemes.

Water conservation and distribution works in country districts to 30th June, 1962, have cost £39,267,767 (exclusive of river control and irrigation works on the Murray River) and contain 7,073 miles of water mains.

4. **Underground Water.**—The occupied portion of South Australia is, on the whole, well endowed with underground water, and the extent of the several artesian basins is reasonably well known. There are also considerable areas in which groundwater occurs, notably in the south-east of the State where, in the Keppock district, supplies exceeding 100,000 gallons per hour are not uncommon. Quality varies widely, but a great deal is at least useful for watering stock, and this is the major use to which it is put.

The deepest portion of the Great Artesian Basin (in the north-east) is not extensively developed because development costs are high in proportion to the carrying capacity of the arid land. Deep boreholes have been drilled by the Government to provide watering places along stock routes, and bores around the basin margin have developed pressure waters which occur at comparatively shallow depth, as at Marree township where the deepest flowing bore is 575 feet. In addition to the pressure waters, the non-pressure aquifers of the subsidiary basins provide pastoralists with stock water supplies which can be readily and economically developed.

The use of the waters of the Murray Basin is essential to settlement in the Murray Mallee country and in the south-east of the State, especially for farms and township supplies. Mount Gambier draws its water from Blue Lake, which is fed from the Basin. Bores supply a number of towns in this Basin, the deepest bore being 1,805 feet.

On Eyre Peninsula, the Uley Wanilla Basin has been in use since 1949, and the Lincoln Basin since 1960, to supplement surface supplies. Investigations are being made into the further development of the Lincoln Basin and into the use of the Poldia Basin near Lock.

Pastoralists, farmers, market gardeners and others have been assisted with expert advice on drilling, and the Government maintains and operates 30 drilling plants which to date have developed an underground water supply potential in excess of 140 million gallons of water a day throughout the State. The whole of the Murray River Basin has been examined critically to ascertain the extent of land which could be used for lucerne, and considerable tracts of previously undeveloped country in the upper south-east, Kangaroo Island and Yorke Peninsula have been found to have usable water and are now being opened up.

Groundwater resources surveys are undertaken continually by geologists of the Department of Mines, the results being published in various bulletins and reports issued from time to time. The *Groundwater Handbook* published in 1959 by the department provides a comprehensive detailed review of the State's groundwater resources.

5. **Farm Water Schemes.**—The Department of Mines gives assistance to individual farmers in the provision of supplies from underground sources, and the Department of Agriculture provides an advisory service on water conservation on farms. In addition, a great part of the farming areas is supplied with water under pressure from the extensive distribution systems connected to various reservoirs or the Murray River.

6. **South-Eastern Drainage.**—In the south-east of South Australia it has been necessary to construct costly drainage schemes to dispose of surplus water from areas where a series of valleys or flats is separated by low ranges, parallel to the coastline, which prevent natural drainage.

The Millicent Drainage System, completed in 1885, reclaimed 100,000 acres. The South-Eastern Drainage Area System, which is controlled by the South-Eastern Drainage Board, comprises drains constructed by the Government at national cost, plus those undertaken by the Government in co-operation with the landholders. The area is bounded on the east by the State boundary, and on the west by the sea coast. It extends from about 55 miles north of Kingston southerly to near Millicent and Kalangadoo. Up to 1948, about 430 miles of drains had been provided at a cost of £720,876. These were of a developmental nature intended more to promote the rapid removal of floodwaters than to provide a complete system of drainage. Since 1948, the complete drainage of the Biscuit, Reedy Creek and Avenue Flats in the Western Division has been in progress. The southern section of 260,000 acres, involving an excavation of 8,100,000 cubic yards, has been completed. Work is in progress on the northern section of 140,000 acres, where 31 miles of the main outlet drain, involving the excavation of nearly 2½ million cubic yards of material, have been completed. In addition, work is in hand for the drainage of 727,000 acres of land in the Eastern Division of the south-east, situated east of Bakers Range, and extending from near Kalangadoo to north of Naracoorte. As part of the first stage of the work (which involves the construction of a main diversion drain from Beachport to Struan), an existing drain from Beachport to Legges Lane (a distance of over 24 miles) is being enlarged, and 3,187,000 cubic yards of material have been excavated.

The capital cost of drainage in the South-Eastern Drainage Area System to 30th June, 1962, was £6,534,000, and the length of drains constructed was 730 miles.

## § 6. Western Australia

1. **General.**—(i) *Rainfall.* Brief particulars of the climatic conditions in Western Australia are given on page 1133 of Official Year Book No. 37. (See also Chapter II. Physiography, page 45, of this Year Book.)

(ii) *Administration.* Natural water rights in the State, with few exceptions, are vested in the Crown. Irrigation districts are administered by the Minister for Water Supply, Sewerage and Drainage under the *Rights in Water and Irrigation Act* 1914–1954, and he is advised by an Irrigation Commission representing the local irrigationists and governmental, technical and financial branches. Water supplies in country areas in Western Australia coming under the provisions of the *Water Boards Act* 1904–1954 and the *Country Areas Water Supply Act* 1947–1960 are controlled either by the local authority or by the Water Supply, Sewerage and Drainage Department. Those controlled by the Department (except for some local water supplies to country towns still under the provisions of the *Water Boards Act*) form the Country Areas Water Supply, consisting of the Goldfields and Agricultural Water Supply, the Great Southern Towns Water Supply and local water supplies to country towns and districts. The Department also controls individual water supplies serving isolated mines, stock routes, and agricultural areas.

2. **Irrigation.**—The main irrigation areas are situated along the South-Western Railway between the towns of Waroona (70 miles from Perth) and Dardanup (116 miles from Perth).

The Water Supply, Sewerage and Drainage Department controls three irrigation districts—Waroona, Harvey and Collie River—the total area irrigated in these districts during 1961–62 being 26,121 acres and the total water used 103,500 acre feet. Investigations are being carried out with a view to irrigating a further 30,000 acres south of the Collie River Irrigation District.

The Waroona Irrigation District (3,417 rated acres) is supplied from Samson Brook Dam (7,437 acre feet capacity) and Drakes Brook Dam (1,855 acre feet); the Harvey Irrigation District (14,369 rated acres) from Stirling Dam (46,191 acre feet) and the Harvey Weir (8,372 acre feet); and the Collie River Irrigation District (9,269 rated acres) from the Wellington Dam (150,107 acre feet). The Logue Brook Dam (19,246 acre feet) within the Harvey Irrigation District is currently under construction.

An area of approximately 650 acres of Gascoyne River flats adjacent to Carnarvon is under irrigated cultivation. The principal crops are bananas and beans, but others such as tomatoes are also grown. For this agriculture, some 130 acre feet of water a week are drawn from river underflow.

On the Liveringa flood plain, 65 miles south-east of Derby, commercial production of rice has been achieved following successful experimental work. Irrigation water from the Fitzroy River is diverted through Uralla Creek for 25 miles to the rice growing area where a natural storage of approximately 1,200 acre feet exists. During periods of low flow in the Fitzroy River, the supply of water is augmented by pumping. Further storage with a capacity of 4,500 acre feet has been provided by the construction of a dam on Uralla Creek 18 miles from the Fitzroy River. A weir which has been constructed across the Fitzroy River provides gravity flow to Uralla Creek while the Fitzroy River is flowing.

The Ord River in the Kimberley Division of Western Australia traverses a tropical area served with monsoonal rains of irregular incidence and quantity, varying from 20 inches in the south to 30 inches in the north. The hottest months (December to March) are also the months of highest rainfall. Communications and population are sparse. The Western Australian Government is considering a proposal to build a dam to conserve 3½ million acre feet of water, equipped with a hydro-electric plant, which might supply water for an area of some 200,000 acres agriculturally and topographically suitable for irrigation. Investigations show that the climate and soil conditions are suitable for the cultivation of sugar cane, rice, cotton, safflower and various oil seeds. The economic production of these and other crops, as well as the possible use of such irrigation areas for fattening cattle, is being examined at the Kimberley Research Station on the Ord River. Construction of a diversion dam at Bandicoot Bar, now in progress some 30 miles downstream from the main dam site, will enable a number of pilot irrigation farms to be established.

Particulars of the areas of crops and pastures irrigated in Western Australia in the years 1957-58 to 1961-62 are given in the table below.

#### AREA OF LAND IRRIGATED: WESTERN AUSTRALIA

(Acres)

Year	Vegetables	Fruit	Vineyards	Other crops (a)	Pastures	Total
1957-58.. ..	8,417	5,794	575	2,205	24,328	41,319
1958-59.. ..	8,211	6,850	630	3,429	24,982	44,102
1959-60.. ..	8,447	7,642	705	3,668	25,427	45,889
1960-61.. ..	9,076	8,335	897	5,591	24,652	48,551
1961-62.. ..	9,596	8,840	972	4,235	25,036	48,679

(a) Includes fodder and fallow land.

3. Water Supply Schemes.—(i) *Metropolitan*. Particulars relating to the Metropolitan Water Supply are given in Chapter XIX. Local Government.

(ii) *Goldfields and Agricultural Water Supply*. Western Australia has one of Australia's most spectacular water supply schemes, and a brief account of its development will be found on page 1134 of Official Year Book No. 37. Mundaring Reservoir on the Helena River, 26 miles from Perth, is the source of water supplied to the Eastern Goldfields and has a capacity of 62,435 acre feet and a catchment of 569 square miles. The water passes through 346 miles of main pipeline, mostly steel and 30 inches in diameter, equipped with eight pumping stations.

Maximum pumping capacity from Mundaring Pumping Station is 13.75 million gallons a day with provision to increase this to 18.5 million gallons a day. The total capacity of

all receiving, regulating, standby and service tanks along the main pipeline is 154 million gallons, which includes three standby reservoirs at Kalgoorlie having a combined capacity of 60 million gallons.

Hundreds of miles of branch pipelines have been laid to mining areas, agricultural areas and country towns, a notable one being the Norseman extension of 103 miles. The system serves some 82 towns and water is reticulated to 4,200,000 acres of mixed farming lands. The total length of pipelines is 3,727 miles and the number of services is 24,700. The total quantity of water pumped from Mundaring Reservoir in 1961-62 was 3,511 million gallons. The total cost of the scheme to the end of 1961-62 was £18,278,091, of which the Commonwealth Government contributed £3,570,278 under the terms of the Comprehensive Water Supply Scheme.

(iii) *Comprehensive Water Supply Scheme.* A comprehensive water supply scheme to supplement water supplies to the goldfields, agricultural areas, and country towns, authorized in 1947 as a joint work between the Commonwealth and State Governments, was completed towards the end of 1961. The northern section is an enlargement and extension of the Goldfields and Agricultural Water Supply. The southern section is the Great Southern Towns Water Supply. Linked with Wellington Dam (initially an irrigation work on the Collie River) by 80 miles of 30-inch diameter pipe through three pumping stations to Narrogin, it now supplements the existing water supplies to country towns along the Great Southern Railway, north to Brookton and south to Katanning. The raising of the impounding wall of Wellington Dam to increase its storage to about 150,100 acre feet was completed in 1960. Expenditure on the Scheme to 30th June, 1962, amounted to £10,214,496.

(iv) *Local Water Supplies.* Local schemes other than as above comprise those in the remaining agricultural and mining areas, including the North-west and Kimberley Divisions. Eighty-three separate reticulated water supplies serve country towns and districts. Of these, seventy-seven are controlled by the Water Supply, Sewerage and Drainage Department and the remainder by local authorities.

(v) *Commonwealth and State Government Railways.* Railways of the Commonwealth and State Governments make independent provision for supplies of water for their own purposes, although considerable additional quantities are consumed by the Railways from other sources, e.g., Public Works and Metropolitan Water Supply Departments.

(vi) *Catchments.* The water supplies to these country schemes come from stream flow, dams, tanks, wells and bores.

A total of 81 rated stream gauging stations is operating in the South-west, North-west and Kimberley Divisions. Three types of catchment peculiar to this State developed in connexion with local water supplies and deserving special mention are:—rock catchments, which consist mainly of clear granite out-cropping rock, from which the overall run-off from rain amounts to approximately 40 per cent.; bituminous catchments, which are areas which have been sealed with emulsified bitumen—some hundreds of acres have been so treated and yield a run-off of approximately 80 per cent. of the rainfall; and roaded catchments, where selected areas of a catchment are cleared, graded and formed into roads to assist in obtaining additional rainfall run-off.

4. *Underground Water.*—Individual farmers, orchardists, market gardeners and others pump groundwater from wells and bores, using windmills, engines or electric power. Water is also obtained from artesian and sub-artesian bores. Local artesian aquifers are utilized for town supplies at Perth, Bunbury and Busselton, while underground water is piped from the Wicherina Basin (in the Perth Basin) for the town supply at Geraldton. The Public Works Department hires out boring plants to local authorities who in turn hire them to farmers to assist their boring operations. In addition, the department operates its own boring plants and contracts with private firms in connexion with water supply works.

Considerable advances in the knowledge of aquifers and quality of water in the main sedimentary basins have been made as a result of the extensive geological surveys in connexion with oil exploration during the past ten years. The Geological Survey of Western Australia has established a Hydrological Division to investigate and advise on the underground water resources of the State. A detailed survey of the Perth Basin, extending from Northampton to Augusta, is in progress. The Mines Department Drilling Section, with its own plant and by separate contracts, drills the exploratory holes recommended by the Geological Survey.

## § 7. Tasmania

1. **General.**—(i) *Rainfall.* Brief particulars of the rainfall pattern in Tasmania are given on page 1136 of Official Year Book No. 37. (See also Chapter II. Physiography, page 45 of this Year Book.)

(ii) *Main Purposes of Conservation and Utilization.* Owing to the generally more adequate rainfall in Tasmania, scarcity of water is not such a problem as it is in most mainland areas, though not all streams are by any means permanently flowing. The only large scale conservation by reservoirs is for hydro-electric power generation, but there are some moderately sized dams built by mining and industrial interests, and by municipal authorities for town water supplies.

Until a few years ago, irrigated areas were negligible except for long-established hop fields, but there is a rapidly extending use of spray irrigation on orchards and pastures, and to some extent on potatoes and beans. Up to the present, there has been almost complete dependence on natural stream flows, but the need for some regulating storages is now apparent. A few farmers are constructing storages of their own, and the extension of this practice is foreseen as the logical solution in most areas, as valleys are narrow and steep sided. Single large reservoirs cannot economically serve large areas of suitable land, as nearly every valley is separated from others by pronounced hills, prohibiting the construction of cross-country channels.

Underground water is generally of poor quality through mineralization, but a small quantity, exploited to a minor degree by bores and pumps, exists over an area in the midlands, on the north-west coast and on King Island.

(iii) *Administration.* In 1962, a new authority, the Metropolitan Water Board, assumed control of water supplies to Hobart, Glenorchy, Kingborough and Clarence. Water supplies to other areas are primarily the responsibility of local councils, subject to approval of plans and finance by the Rivers and Water Supply Commission.

While the Commission does not own the waters of streams and lakes, it is empowered to take them, or issue licences, subject to pre-existing statute and common law rights. These include water reserved for specific industries, municipal requirements, and ordinary riparian rights. The Commission is also concerned with drainage trusts' operations, river improvement, including repairs after flood damage, and stream gauging.

2. **Hydro-electricity.\***—With the exception of a small diesel plant on King Island, electricity generation in Tasmania has resulted entirely from the development of its plentiful waters, and on a world basis this State ranks second to Norway in electricity consumption per head of population. The Hydro-Electric Commission, the authority controlling the generation of electricity in Tasmania, conducts a continuous survey of the water power resources of the State assisted by modern methods such as aerial photography and geo-physical exploration.

3. **Regional Water Schemes.**—Three regional water schemes are in operation. The first draws water from the east bank of the River Derwent at Lawitta to provide domestic and industrial supplies in five southern municipalities. A second, which increases existing supplies to Hobart, pumps water from the west bank of the River Derwent at Lawitta. In addition, the State government has constructed a regional water scheme to serve the aluminium refinery at Bell Bay on the River Tamar and to supply several municipalities with bulk water for domestic and industrial purposes.

Potential sources capable of greater development without storage exist on the Derwent, South Esk, Huon, Lake, Mersey and Forth Rivers. There is also a great reserve of untapped permanent streams in the western half of the State, which is largely unsettled. Diversion to the eastern half of the watersheds is not regarded as practicable.

4. **Industrial.**—Three principal industrial schemes have been installed privately. About 10 million gallons of water a day are being pumped from the Derwent River at Lawitta for use in a nearby paper mill. Another paper mill at Burnie uses several million gallons of water a day from the Emu River, and a factory at Heybridge reticulates water from Chasm Creek.

The State government has constructed some water schemes for use primarily for industrial purposes. The scheme serving the aluminium refinery at Bell Bay is referred to in para. 3 above. A new wood-pulping plant which will require several million gallons of

\* See also Chapter VII. Electric Power Generation and Distribution, p. 267.

water a day is being installed near Geeveston and, in order to supplement the summer flows of the Kermadie River for use by the industry, the State government in 1962, through the Hydro-Electric Commission, constructed a storage on Riley's Creek by means of a 37-foot high rock-fill dam.

5. **Irrigation.**—There are no State irrigation projects at present, but the Rivers and Water Supply Commission is investigating the possibility of establishing a storage for the Coal Valley. Preliminary investigations have also been made in the Jordan Valley. The *Water Act* 1957 provides for irrigation works to be undertaken by municipalities and by trusts constituted for the purpose, but no such works have been undertaken to date. All systems operating are privately owned, and with one exception (at Bushy Park) are single-farm units. At Bushy Park, a small system serves a group of properties. The larger proportion of the area under irrigation is watered by gravitational systems and the remainder comprises areas devoted to vegetables and served by municipal water supplies or private spray systems.

Details of the areas of crops and pastures irrigated in Tasmania in the years 1957–58 to 1961–62 are shown in the following table.

#### AREA OF LAND IRRIGATED: TASMANIA

(Acres)

Year	Vegetables	Fruit	Hops	Other crops (a)	Pastures	Total
1957–58.. ..	1,289	1,833	1,381	1,502	9,316	15,321
1958–59.. ..	1,386	1,737	1,292	1,514	7,502	13,431
1959–60.. ..	1,235	2,350	1,311	1,873	11,339	18,108
1960–61.. ..	2,103	3,311	1,364	1,787	10,369	18,934
1961–62.. ..	3,388	3,930	1,447	2,711	11,713	23,189

(a) Includes fodder and fallow land.

### § 8. Northern Territory

1. **Climate and Topography.**—Some particulars of the climate and main topographical features of the Northern Territory are given on page 1138 of Official Year Book No. 37, and in this issue information on climatic conditions will be found in Chapter II. Physiography, and a brief outline of contour and physical characteristics in Chapter V. The Territories of Australia.

2. **Administration.**—Under the *Control of Waters Ordinance* 1938–1961 of the Northern Territory, natural waters are vested in the Crown. Where a watercourse or lake forms a boundary of any land alienated by the Crown, the beds and banks are deemed to remain the property of the Crown (except in special cases) and diversion of water is prohibited except under prescribed conditions. There is a Water Resources Branch of the Northern Territory Administration under the control of a Director. The functions of the branch include systematic stream gauging, collection of data on surface and underground water supplies, planning of water use for irrigation and town water supplies, and flood prevention and control.

Another function of the branch, which is increasing in importance as it builds up a body of technical data and information about the Territory's water resources, is the dissemination of this knowledge by the provision of advice and assistance to professional drillers and to landholders for the development and improvement of water supplies on agricultural and pastoral leases.

3. **Underground Water.**—The marked seasonal rainfall over the whole of the Northern Territory is one of the basic factors affecting the pastoral industry, which provides the bulk of the Territory's income. The inadequacy of surface water during the dry season emphasizes the importance of underground water supplies in the Territory, where most of the cattle numbers are dependent on underground supplies for three to five months each year.

Rainfall is one of the factors controlling cattle numbers, but geological features, controlling both soils and the storage of underground water, are equally important. In the northern-most portion of the Territory, which receives from 25 to 60 inches of seasonal rainfall a year, surface water supplies are, in general, adequate for the pastoral industry. Despite this, however, this area has a comparatively low carrying capacity for cattle, and the pastoral industry is concentrated more in inland areas where feed retains more nutritive value in winter, despite dry conditions.

South from this well-watered northern-most portion, the Territory becomes progressively drier, with an average annual rainfall of only 5 inches at the margins of the Simpson Desert in the south-east corner. In the lower rainfall areas, the search for potable underground water becomes exacting, but in the Ord-Victoria region and the Barkly Tablelands, the best pastures are generally in areas where sub-surface conditions are suitable for the storage of underground water.

In the Ord-Victoria region, the best grass lands overlie volcanic rocks and extend over some 10,000 square miles. Groundwater is obtained in shallow bores averaging 70 to 80 feet in depth and producing small supplies which range up to 1,500 gallons an hour. For the most part, water is stored in joints, faults or cracks in the rocks, although in places sub-artesian conditions exist. On the whole, selection of bore sites is difficult. There are also small sedimentary basins in the region, some of which yield sub-artesian, and in places artesian, water and provide areas of good pastures.

The Barkly Tablelands, which extend into Western Queensland, overlie flat-lying limestone, sandstone and shale of the Barkly Basin. In most places, underground water is under pressure (sub-artesian), but no flowing bores are known. Sandstones and beds of limestone with fractures and solution cavities provide a number of aquifers within the Basin. The hydraulic surface (to which pressure water will rise in bores) ranges between 500 and 600 feet above sea level and adequate supplies for the watering of stock are available at depths ranging from 150 to 400 feet from the surface. The water from over 90 per cent. of the bores is suitable for stock and over 50 per cent. of it is suitable for human consumption. Investigations by the Commonwealth Bureau of Mineral Resources indicate that underground water supplies will be more than sufficient for the future development of the pastoral industry on the Tablelands.

In the Alice Springs district, valuable pastures occur on a great variety of rock types, and from some of these very little underground water is available. Many shallow bores obtain water from alluvium near stream channels. There are also many successful bores in porous sands and limestone in Mesozoic and Cainozoic sedimentary basins and in some Upper Proterozoic and Palaeozoic limestones and sandstones. Boring in the metamorphic rocks and granite of the basement has, on the whole, met with little success. In many areas, the underground water is of poor quality.

Considerable research has been undertaken in recent years into increasing the Alice Springs water supply from alluvial basins and provision of a water supply for the mining town of Tennant Creek from the Cabbage Gum Basin, a small basin of alluvium and deeply weathered Precambrian rocks, 15 miles south of the town.

Up to 30th June, 1962, 2,949 bores and wells had been registered in the Territory. Of these 1,917 were on pastoral properties, 74 on agricultural properties, 223 served town and domestic water supplies, 22 were located on mining fields, 80 were being used as test-bores and 378 were used by Defence Departments during World War II. The number of registered stock route bores established by the Government is 255.

**4. Irrigation.**—There are no large-scale water conservation projects in the Territory with the exception of the Manton Dam (12,700 acre feet), which serves Darwin with a reticulated supply. Some water is drawn from the rising main between the Manton Dam and Darwin for irrigation purposes, but the trend is for properties in this area to develop their own water supplies, either by boring or by pumping from watercourses or lakes. Investigations for a further dam site to augment Darwin's water supply and to provide reticulated water to properties without natural waters have commenced in the Berry Springs area. Hydrological investigations are being carried out by the Administration to determine the supply of water and the best methods of control and use in the potential rice-growing areas of the Territory. One hundred and thirty-three gauging stations were in operation in the Territory at 30th June, 1962, under the control of the Administration's Water Resources Branch. Of these, 81 are equipped with automatic water level recorders. The remaining 52 are staff gauges. Twenty-five gauging stations are for recording changes in water level only, one of these being the Darwin Harbour Tide gauge, which is operated on behalf of



the Harbour and Marine Branch. The other 24 gauges of this kind are scattered over the north sub-coastal plains and measure the depth of flooding over the plains. The information is required for future agricultural production in these areas, notably rice culture. Agricultural activity in the Territory is not extensive, being confined to the Darwin, Adelaide River, Coomalie Creek, Daly River, Katherine River and Alice Springs areas, with only small acreages being utilized.

The Katherine River appears to offer irrigation potentialities on the level soil below the township. Approximately 14 properties in and around Katherine are at present drawing water from the Katherine River for irrigation purposes, vegetables and pastures being the usual crops grown. The Katherine River passes through a gorge upstream of the town under conditions which appear suitable for dam construction. The Administration and the Commonwealth Scientific and Industrial Research Organization are investigating the potentialities of the Katherine area for agricultural production.

## § 9. Papua and New Guinea

1. **Rainfall.**—Rainfall in Papua and New Guinea varies considerably from approximately 250 inches near Lindenhafen (New Britain) and 230 inches at Kikori (Papua) to about 70 inches near Marienburg (New Guinea) and 40 inches at Port Moresby (Papua).

2. **General.**—For a general description of these territories *see* Chapter V. The Territories of Australia, page 140, of this Year Book. Irrigation has not been developed on any organized basis owing to the availability of high rainfall and the nature of agricultural development.

The Territory of Papua and New Guinea is well served with large rivers deriving their water from heavy tropical rains and high mountains which rise to over 14,000 feet. However, complete data regarding water resources are not available.

The largest rivers in the Territory include the Fly (a description of which is given in Chapter XXVI of Year Book No. 40), the Sepik (700 miles), the Ramu (450 miles), the Purari (300 miles) and the Markham (110 miles).

The main water conservation interest in New Guinea at present is the hydro-electric potential, which is extensive. An outline of schemes at present in operation is given in the previous chapter.

## CHAPTER IX

### POPULATION

Statistics in this chapter cover, in the main, the year 1961. More detailed figures will be found in the annual bulletin, *Demography*, and current statistics are published in the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, and the *Australian Demographic Review* (a mimeographed series issued at intervals throughout the year on population and vital statistics).

Statistics of the population of the principal countries and continental groupings of the world are set out in § 15.

#### § 1. Population Statistics

Population statistics for Australia or the component States and Territories at specific dates are of two types.

- (i) *Those ascertained by census enumeration.* These results attain a very high degree of accuracy and may generally be accepted without reservation.
- (ii) *Estimates derived by the application of vital and migration statistics to census data.* In general, three estimates are made for any specific date.
  - (a) Original estimates for dates subsequent to a census made before another census is taken. These estimates represent the population ascertained at the Census, plus natural increase and recorded net migration since the Census. As complete records of interstate migration are not available, the estimated State or Territory populations so derived are approximate, and are subject to revision when the actual population of each State or Territory is ascertained at the next Census. For some States, such revisions are substantial.
  - (b) Two-stage revision of the original estimates for each newly completed intercensal period to adjust for the difference between the new census result and the comparable estimate. This is to bring intercensal estimates into line with the two census populations and thus effect adjustment for unrecorded movement of population in the intercensal period. The first revision is reconciled with preliminary census results and the second revision with final census results.

Final revised figures become the permanent population estimates. For purposes requiring a mean population for any twelve-month period, such mean is calculated as described in § 4. As populations at specific dates are used in these calculations, consequential revisions are made in mean populations when the estimates for specific dates are revised as described above.

In accordance with this policy, all Australian population statistics shown in this issue of the Official Year Book for dates up to 30th June, 1961, and all mean populations for calendar years up to 1960 and financial years up to 1960-61 are final. Population statistics for dates or years subsequent to these will be revised in accordance with the results of the next Census.

Since the establishment of the Commonwealth Bureau of Census and Statistics, the populations of the States and Territories have been estimated in a comparable manner and attention has been given to the improvement of the basic data from which the estimates are compiled. The principal source of error in early estimates lay in the migration

records, both overseas and interstate, and post-censal revisions were made to these figures. With the improvement of records of overseas migration, however, such post-censal revision of the records of overseas migration was not found necessary after the 1933 Census. The same level of improvement has not been achieved in respect of records of interstate movement, which cover travel by sea, air, rail and some movements by road.

## § 2. The Census

1. *Census-taking.*—Although “musters” of the population were carried out at least annually from 1788 to 1825, the first regular census in Australia was not taken until 1828, when a count of the population of the Colony of New South Wales was made. Subsequent censuses were taken sporadically in the various colonies until 1881, when a census was taken on the same date throughout Australia.

In 1891 and 1901, census-taking was still in the hands of the Government Statisticians of the States, but, in 1911, under the provisions of the *Commonwealth Census and Statistics Act*, which provides for the enumeration to be made from one centre instead of by each State as formerly, the Commonwealth Statistician undertook the first Census of the Commonwealth of Australia. The second was taken in 1921, the third in 1933, the fourth in 1947, the fifth in 1954, and the sixth in 1961.

2. *Population recorded at Censuses.*—State and Territorial populations recorded at the Australia-wide censuses taken over the period 1881 to 1961 are shown in the following table. The figures relate to the political boundaries of the several States (or Colonies) and Territories as they existed at the date of each census, except that the Northern Territory has been shown separately from South Australia for the censuses prior to its transfer from that State. The years of formation of the separate Colonies and transfer of the Territories are shown in Chapter 1, § 3 and § 4. The total populations recorded at the censuses taken in the Colonies from 1828 to 1881 were shown in Official Year Book No. 40, page 326.

### POPULATION: AUSTRALIAN CENSUSES, 1881 TO 1961

Census	Population enumerated (excluding full-blood Aborigines)								
	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T. (a)	Aust.
MALES									
3rd April, 1881 ..	410,211	451,623	125,325	146,183	17,062	61,162	3,347	..	1,214,913
5th April, 1891 ..	609,666	598,222	223,779	162,241	29,807	77,560	4,560	..	1,705,835
31st March, 1901 ..	710,005	603,720	277,003	180,485	112,875	89,624	4,216	..	1,977,928
3rd April, 1911 ..	857,698	655,591	329,506	207,358	161,565	97,591	2,734	992	2,313,035
4th April, 1921 ..	1,071,501	754,724	398,969	248,267	177,278	107,743	2,821	1,567	2,762,870
30th June, 1933 ..	1,318,471	903,244	497,217	290,962	233,937	115,097	3,378	4,805	3,367,111
30th June, 1947 ..	1,492,211	1,013,867	567,471	320,031	258,076	129,244	7,378	9,092	3,797,370
30th June, 1954 ..	1,720,860	1,231,099	676,252	403,903	330,358	157,129	10,288	16,229	4,546,118
30th June, 1961 ..	1,972,909	1,474,395	774,579	490,225	375,452	177,628	16,206	30,858	5,312,252
FEMALES									
3rd April, 1881 ..	339,614	409,943	88,200	130,231	12,646	54,543	104	..	1,035,281
5th April, 1891 ..	517,471	541,866	169,939	153,292	19,975	69,107	338	..	1,471,988
31st March, 1901 ..	644,841	597,350	221,126	177,861	71,249	82,851	595	..	1,795,873
3rd April, 1911 ..	789,036	659,960	276,307	201,200	120,549	93,620	576	722	2,141,970
4th April, 1921 ..	1,028,870	776,556	357,003	246,893	155,454	106,037	1,046	1,005	2,672,864
30th June, 1933 ..	1,282,376	917,017	450,317	289,987	204,915	112,502	1,472	4,142	3,262,728
30th June, 1947 ..	1,492,627	1,040,834	538,944	326,042	244,404	127,834	3,490	7,813	3,781,988
30th June, 1954 ..	1,702,669	1,221,242	642,007	393,191	309,413	151,623	6,181	14,086	4,440,412
30th June, 1961 ..	1,944,104	1,455,718	744,249	479,115	361,177	172,712	10,889	27,970	5,195,934

(a) Part of New South Wales prior to 1911.

## POPULATION: AUSTRALIAN CENSUSES, 1881 TO 1961—continued

Census	Population enumerated (excluding full-blood Aborigines)							
	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T. (a)	Aust.
PERSONS								
3rd April, 1881 ..	749,825	861,566	213,525	276,414	29,708	115,705	3,451	2,250,194
5th April, 1891 ..	1,127,137	1,140,088	393,718	315,533	49,782	146,667	4,898	3,177,823
31st March, 1901 ..	1,354,846	1,201,070	498,129	358,346	184,124	172,475	4,811	3,773,801
3rd April, 1911 ..	1,646,734	1,315,551	605,813	408,558	282,114	191,211	3,310	4,455,005
4th April, 1921 ..	2,100,371	1,531,280	755,972	495,160	332,732	213,780	3,867	5,435,734
30th June, 1933 ..	2,600,847	1,820,261	947,534	580,949	438,852	227,599	4,850	6,629,839
30th June, 1947 ..	2,984,838	2,054,701	1,106,415	646,073	502,480	257,078	10,868	7,579,358
30th June, 1954 ..	3,423,529	2,452,341	1,318,259	797,094	639,771	308,752	16,469	8,986,530
30th June, 1961 ..	3,917,013	2,930,113	1,518,828	969,340	736,629	350,340	27,095	10,508,186

(a) Part of New South Wales prior to 1911.

The results of the 1961 Census of the Australian External Territories are shown in § 13 of this chapter and in some detail in an appendix to Chapter V. The Territories of Australia.

3. Increase since 1891 Census.—The increases in the populations of the several States and Territories and of Australia as a whole during the last seven intercensal periods are shown in the following table, which distinguishes the numerical increases, the proportional increases (which do not allow for the differences in the length of the intercensal periods) and the average annual rates of increase.

POPULATION: INTERCENSAL INCREASES  
(EXCLUDING FULL-BLOOD ABORIGINES)

State or Territory	1891-1901 (10 years)	1901-1911 (10 years)	1911-1921 (10 years)	1921-1933 (12½ years)	1933-1947 (14 years)	1947-1954 (7 years)	1954-1961 (7 years)
NUMERICAL INCREASE							
New South Wales(a)	227,709	293,602	453,637	500,476	383,991	438,691	493,484
Victoria ..	60,982	114,481	215,729	288,981	234,440	397,640	477,772
Queensland ..	104,411	107,684	150,159	191,562	158,881	211,844	200,569
South Australia ..	42,813	50,212	86,602	85,789	65,124	151,021	172,246
Western Australia ..	134,342	97,990	50,618	106,120	63,628	137,291	96,858
Tasmania ..	25,808	18,736	22,569	13,819	29,479	51,674	41,588
Northern Territory	-87	-1,501	557	983	6,018	5,601	10,626
Aust. Cap. Terr.(b)	..	..	858	6,375	7,958	13,410	28,513
Australia ..	595,978	681,204	980,729	1,194,105	949,519	1,407,172	1,521,656

## PROPORTIONAL INCREASE—PER CENT.

New South Wales(a)	20.20	21.67	27.55	23.83	14.76	14.70	14.41
Victoria ..	5.35	9.53	16.40	18.87	12.88	19.35	19.48
Queensland ..	26.52	21.62	24.79	25.34	16.77	19.15	15.21
South Australia ..	13.57	14.01	21.20	17.33	11.21	23.38	21.61
Western Australia ..	269.86	53.22	17.94	31.89	14.50	27.32	15.14
Tasmania ..	17.60	10.86	11.80	6.46	12.95	20.10	13.47
Northern Territory	-1.78	-31.20	16.83	25.42	124.08	51.54	64.52
Aust. Cap. Terr.(b)	..	..	50.06	247.86	88.95	79.33	94.06
Australia ..	18.75	18.05	22.01	21.97	14.32	18.57	16.93

## AVERAGE ANNUAL RATE OF INCREASE—PER CENT.

New South Wales(a)	1.86	1.97	2.46	1.76	0.99	1.98	1.94
Victoria ..	0.52	0.91	1.53	1.42	0.87	2.36	2.58
Queensland ..	2.38	1.98	2.24	1.86	1.11	2.53	2.04
South Australia ..	1.28	1.32	1.94	1.31	0.76	3.05	2.83
Western Australia ..	13.97	4.36	1.66	2.29	0.97	3.51	2.03
Tasmania ..	1.63	1.04	1.12	0.51	0.87	2.65	1.82
Northern Territory	-0.18	-3.67	1.57	1.87	5.93	6.12	7.37
Aust. Cap. Terr.(b)	..	..	4.14	10.71	4.65	8.70	9.93
Australia ..	1.73	1.67	2.01	1.63	0.96	2.46	2.26

(a) Includes Australian Capital Territory prior to 1911.

(b) Part of New South Wales prior to 1911.

NOTE.—Minus sign (—) denotes decrease.

## § 3. Growth and Distribution of Population

1. **Growth of Population.**—The table which follows shows the growth in the population of each sex in the various States and Territories as measured by the estimated population at 31st December in 1900 and thereafter at decennial intervals to 1960, and for each year from 1958 to 1962.

## ESTIMATED POPULATION: 1900 TO 1962

(EXCLUDING FULL-BLOOD ABORIGINALS)

At 31st Dec.	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T. (a)	Australia
<b>MALES</b>									
1900	716,047	601,773	274,684	180,349	110,088	89,763	4,288	..	1,976,992
1910	858,181	646,482	325,513	206,557	157,971	98,866	2,738	..	2,296,308
1920	1,067,945	753,803	396,555	245,300	176,895	107,259	2,911	1,062	2,751,730
1930	1,294,419	892,422	481,559	288,618	232,868	113,505	3,599	4,732	3,311,722
1940 <sup>b</sup>	1,402,297	947,037	536,712	297,885	248,734	123,650	6,337	7,856	3,570,508
1950	1,627,618	1,114,497	620,329	364,705	294,758	147,103	9,414	13,021	4,191,445
1960	1,951,907	1,455,696	766,448	483,802	372,665	178,630	14,785	29,140	5,253,073
1958	1,875,863	1,382,585	740,017	458,401	361,441	171,737	13,094	22,957	5,026,095
1959	1,908,062	1,416,347	753,906	471,868	366,253	175,285	14,256	26,386	5,132,363
1960	1,951,907	1,455,696	766,448	483,802	372,665	178,630	14,785	29,140	5,253,073
1961	1,983,891	1,483,176	778,282	495,778	379,947	185,661	15,236	32,588	5,354,559
1962	2,015,081	1,514,612	789,664	504,571	389,304	187,833	15,798	36,048	5,452,911
<b>FEMALES</b>									
1900	644,258	594,440	219,163	176,901	69,879	83,137	569	..	1,788,347
1910	785,674	654,926	273,503	200,311	118,861	94,937	563	..	2,128,775
1920	1,023,777	774,106	354,069	245,706	154,428	105,493	1,078	910	2,659,567
1930	1,251,934	900,183	435,177	285,849	198,742	111,792	1,365	3,987	3,189,029
1940 <sup>b</sup>	1,388,651	967,881	494,740	301,171	225,342	120,352	2,637	6,304	3,507,078
1950	1,613,439	1,122,685	585,089	358,138	277,891	143,230	5,006	10,558	4,116,036
1960	1,925,354	1,432,594	735,838	473,220	358,368	177,339	10,002	26,132	5,138,847
1958	1,852,937	1,362,580	709,320	449,652	345,755	172,161	8,862	19,996	4,921,263
1959	1,886,015	1,395,082	723,255	462,629	352,438	176,064	9,558	23,564	5,028,605
1960	1,925,354	1,432,594	735,838	473,220	358,368	177,339	10,002	26,132	5,138,847
1961	1,965,529	1,467,614	746,996	484,977	366,258	178,473	10,022	29,503	5,249,372
1962	2,001,554	1,498,835	760,706	495,122	376,411	181,570	10,486	32,776	5,357,460
<b>PERSONS</b>									
1900	1,360,305	1,196,213	493,847	357,250	179,967	172,900	4,857	..	3,765,339
1910	1,643,855	1,301,408	599,016	406,868	276,832	193,803	3,301	..	4,425,083
1920	2,091,722	1,527,909	750,624	491,006	331,323	212,752	3,989	1,972	5,411,297
1930	2,546,353	1,792,605	916,736	574,467	431,610	225,297	4,964	8,719	6,500,751
1940 <sup>b</sup>	2,790,948	1,914,918	1,031,452	599,056	474,076	244,002	8,974	14,160	7,077,586
1950	3,241,057	2,237,182	1,205,418	722,843	572,649	290,333	14,420	23,579	8,307,481
1960	3,877,261	2,888,290	1,502,286	957,022	731,033	355,969	24,787	55,272	10,391,920
1958	3,728,800	2,745,165	1,449,337	908,053	707,196	343,898	21,956	42,953	9,947,358
1959	3,794,077	2,811,429	1,477,161	934,497	718,691	351,349	23,814	49,950	10,160,968
1960	3,877,261	2,888,290	1,502,286	957,022	731,033	355,969	24,787	55,272	10,391,920
1961	3,949,420	2,950,790	1,525,278	980,755	746,205	364,134	25,258	62,091	10,603,931
1962	4,016,635	3,013,447	1,550,370	999,693	765,715	369,403	26,284	68,824	10,810,371

(a) Part of New South Wales prior to 1911. (b) Includes all defence personnel enlisted in Australia irrespective of movements subsequent to enlistment.

Estimates of population for intercensal years are obtained in the manner outlined in § 1.

The estimated population at 31st December each year from 1788 to 1946 was shown in *Demography*, Bulletin No. 67, 1949, and for the period 1881 to 1961 in *Demography* Bulletin No. 79. A graph illustrating the growth of the population of Australia and of each State and Territory appears on page 327.

2. **Proportion of Area and Population, Density and Masculinity.**—The previous table shows the estimated number of persons in each of the States and Territories at 31st December, 1962. In the following table, the proportions of the total area and of the total population represented by each State and Territory are given, together with the density and the masculinity of the population.

### DENSITY AND MASCULINITY OF POPULATION, 1962

(EXCLUDING FULL-BLOOD ABORIGINALS)

State or Territory	Proportion of total area (per cent.)	Proportion of estimated population, 31st December, 1962 (per cent.)			Density (a)	Masculinity (b)
		Males	Females	Persons		
New South Wales .. ..	10.42	36.96	37.36	37.16	12.98	100.68
Victoria .. ..	2.96	27.78	27.98	27.88	34.29	101.05
Queensland .. ..	22.45	14.48	14.20	14.34	2.32	103.81
South Australia .. ..	12.79	9.25	9.24	9.25	2.63	101.91
Western Australia .. ..	32.85	7.14	7.02	7.08	0.78	103.42
Tasmania .. ..	0.88	3.44	3.39	3.42	14.09	103.45
Northern Territory .. ..	17.62	0.29	0.20	0.24	0.05	150.66
Australian Capital Territory .. ..	0.03	0.66	0.61	0.63	73.29	109.98
Australia .. ..	100.00	100.00	100.00	100.00	3.64	101.78

(a) Number of persons per square mile.

(b) Number of males per 100 females.

Additional information regarding density and masculinity of population appears in later sections of this chapter.

3. **Urban and Rural Distribution.**—Particulars of the distribution of the population amongst metropolitan, other urban and rural areas in each State and Territory are available only from a census. The following table shows the distributions at the 1954 and 1961 Censuses. Corresponding details for previous censuses were shown in earlier issues of the Year Book.

Metropolitan Urban Divisions comprise the capital cities of the States and the City of Canberra, the National Capital, the boundaries of the metropolitan urban divisions being determined for Census purposes by the Statisticians of the States in collaboration with the Commonwealth Statistician, and include, together with the city proper, a number of adjacent municipalities and shires. In order to conform to the growth of the metropolitan urban population, the boundaries are reviewed at each Census and adjustments made, wherever necessary, to embrace contiguous urban areas that have developed since the previous Census. Amendments were made, prior to the Census of 1961, to the boundaries of the Metropolitan Urban Divisions of Victoria, Queensland and Tasmania.

Other Urban Divisions comprise (i) all separately incorporated municipalities (or cities, towns or boroughs) outside the Metropolitan Urban Division (including Darwin, the capital city of the Northern Territory) except for any municipality or part of a municipality which was specifically regarded as rural for Census purposes; and (ii) towns, not separately incorporated, with a population of 1,000 persons or more (750 persons in Tasmania).

Rural Divisions comprise the remaining portions of each State and Territory.

The term "Migratory" used in the following tables refers to persons not elsewhere enumerated who at midnight between 29th and 30th June, 1961, were on ships in Australian waters or were travelling on long-distance trains, motor coaches or aircraft.

Before comparisons are made between the populations of the metropolitan urban, other urban and rural divisions at various Censuses, consideration must be given to the changes which have taken place in the composition of these divisions from Census to Census. In the following table, the comparative figures for 1954 have been adjusted to the boundaries used in 1961.

**URBAN AND RURAL POPULATION(a): CENSUS, 30th JUNE, 1961**  
(EXCLUDING FULL-BLOOD ABORIGINALS)

EXCLUDING 1954-55 AND 1955-56

Division	1961 Census			Proportion of total population of State (per cent.)		Percentage increase since the 1954 Census
	Males	Females	Persons	1954 Census	1961 Census	
NEW SOUTH WALES						
Urban—						
Metropolitan ..	1,077,978	1,105,410	2,183,388	54.42	55.74	17.19
Other ..	577,925	573,974	1,151,899	28.68	29.41	17.32
Rural ..	308,511	262,624	571,135	16.70	14.58	— 0.09
Migratory ..	8,495	2,096	10,591	0.20	0.27	54.16
<i>Total</i> ..	<i>1,972,909</i>	<i>1,944,104</i>	<i>3,917,013</i>	<i>100.00</i>	<i>100.00</i>	<i>14.41</i>
VICTORIA						
Urban—						
Metropolitan ..	949,719	962,176	1,911,895	62.48	65.25	24.79
Other ..	286,196	287,734	573,930	19.86	19.59	17.83
Rural ..	234,720	204,959	439,679	17.33	15.00	3.43
Migratory ..	3,760	849	4,609	0.33	0.16	—42.68
<i>Total</i> ..	<i>1,474,395</i>	<i>1,455,718</i>	<i>2,930,113</i>	<i>100.00</i>	<i>100.00</i>	<i>19.48</i>
QUEENSLAND						
Urban—						
Metropolitan ..	304,871	316,679	621,550	39.45	40.92	19.52
Other ..	269,062	267,834	536,896	34.23	35.35	18.99
Rural ..	199,026	159,368	358,394	26.10	23.60	4.18
Migratory ..	1,620	368	1,988	0.22	0.13	—33.09
<i>Total</i> ..	<i>774,579</i>	<i>744,249</i>	<i>1,518,828</i>	<i>100.00</i>	<i>100.00</i>	<i>15.21</i>
SOUTH AUSTRALIA						
Urban—						
Metropolitan ..	289,467	298,490	587,957	60.66	60.66	21.60
Other ..	91,240	86,140	177,380	15.24	18.30	46.07
Rural ..	106,315	93,750	200,065	23.81	20.64	5.41
Migratory ..	3,203	735	3,938	0.29	0.40	67.86
<i>Total</i> ..	<i>490,225</i>	<i>479,115</i>	<i>969,340</i>	<i>100.00</i>	<i>100.00</i>	<i>21.61</i>
WESTERN AUSTRALIA						
Urban—						
Metropolitan ..	205,107	215,026	420,133	54.50	57.03	20.50
Other ..	63,893	61,841	125,734	16.97	17.07	15.82
Rural ..	103,923	83,822	187,745	28.18	25.49	4.13
Migratory ..	2,529	488	3,017	0.35	0.41	33.08
<i>Total</i> ..	<i>375,452</i>	<i>361,177</i>	<i>736,629</i>	<i>100.00</i>	<i>100.00</i>	<i>15.14</i>

*See footnote on following page.*

URBAN AND RURAL POPULATION(a): CENSUS, 30TH JUNE, 1961—*continued*  
(Excluding Full-blood Aborigines)

Division	1961 Census			Proportion of total population of State (per cent.)		Percentage increase since the 1954 Census
	Males	Females	Persons	1954 Census	1961 Census	
TASMANIA						
Urban—						
Metropolitan ..	57,337	58,595	115,932	30.91	33.09	21.49
Other ..	64,986	65,617	130,603	36.03	37.28	17.38
Rural ..	54,547	48,379	102,926	32.85	29.38	1.49
Migratory ..	758	121	879	0.21	0.25	35.23
<i>Total</i> ..	177,628	172,712	350,340	100.00	100.00	13.47
NORTHERN TERRITORY						
Urban—						
Metropolitan ..	..	..	..	..	..	..
Other ..	9,464	7,510	16,974	58.11	62.65	77.37
Rural ..	6,507	3,350	9,857	40.53	36.38	47.67
Migratory ..	235	29	264	1.36	0.97	17.86
<i>Total</i> ..	16,206	10,889	27,095	100.00	100.00	64.52
AUSTRALIAN CAPITAL TERRITORY						
Urban—						
Metropolitan ..	29,463	26,986	56,449	93.28	95.96	99.63
Other ..	..	..	..	..	..	..
Rural ..	1,395	984	2,379	6.72	4.04	16.73
Migratory ..	..	..	..	..	..	..
<i>Total</i> ..	30,858	27,970	58,828	100.00	100.00	94.06
AUSTRALIA						
Urban—						
Metropolitan ..	2,913,942	2,983,362	5,897,304	54.21	56.12	21.06
Other ..	1,362,766	1,350,650	2,713,416	25.27	25.82	19.48
Rural ..	1,014,944	857,236	1,872,180	20.26	17.82	2.81
Migratory ..	20,600	4,686	25,286	0.26	0.24	8.20
<i>Total</i> ..	5,312,252	5,195,934	10,508,186	100.00	100.00	16.93

(a) See letterpress preceding this table for definitions of urban, rural, etc., and for reference to the adjustments to 1954 Census figures in order to provide approximate comparisons on the 1961 Census basis.

NOTE.—Minus sign (—) denotes decrease.



A feature of the metropolitan population is its relatively higher femininity, but this has become less marked over the last 20 years owing to the excess of males in the high annual number of births and in the oversea migration flow in that period. In 1933, the masculinity ratio of metropolitan population was only 90.35 males per 100 females, but in succeeding Censuses the ratios have been: 1947, 92.76; 1954, 96.04; and 1961, 97.67. There is little difference in the ratios between the several metropolitan areas, the ratio of males per 100 females ranging from 95.39 in Perth (Western Australia) to 98.71 in Melbourne (Victoria).

4. Principal Urban Areas.—The following table shows the population of the principal cities and towns (population 6,000 or more) in each State and Territory of Australia at 30th June, 1962, or at 30th June, 1961, where later figures are not available.

### ESTIMATED POPULATION OF PRINCIPAL CITIES AND TOWNS: AUSTRALIA, 30th JUNE, 1962

(EXCLUDING FULL-BLOOD ABORIGINALS)

City or town	Population	City or town	Population	City or town	Population
<b>New South Wales</b>		<b>Victoria</b>		<b>South Australia</b>	
Sydney and Suburbs(a) . .	2,215,970	Melbourne and Suburbs(a) . .	1,956,400	Adelaide and Suburbs(a) . .	593,500
Newcastle and Suburbs(b) . .	212,510	Geelong and Suburbs(b) . .	94,350	Elizabeth(c) . .	27,050
Greater Wollongong . .	135,990	Ballarat and Suburbs(b) . .	55,670	Mount Gambier . .	15,950
Perth . .	34,970	Latrobe Valley (Urban) . .	51,270	Whyalla . .	15,650
Greater Cessnock . .	30,810	Bendigo and Suburbs(b) . .	40,980	Port Pirie . .	14,000
Broken Hill . .	28,980	Warrnambool . .	16,160	Port Augusta . .	9,850
Blue Mountains . .	27,600	Shepparton . .	14,500	Salisbury(c) . .	(e) 9,349
Maitland . .	23,240	Wangaratta . .	14,500	Port Lincoln . .	7,600
Albury(d) . .	22,440	Mildura . .	12,600	Renmark . .	6,100
Wagga Wagga . .	21,000	Hamilton . .	9,620		
Campbelltown . .	20,510	Colac . .	8,490		
Goulburn . .	19,390	Horsham . .	9,330	<b>Western Australia</b>	
Tamworth . .	19,120	Benalla . .	8,490	Perth and Suburbs(a) . .	431,000
Orange . .	19,010	Sale . .	8,190	Kalgoorlie and Suburbs(b) . .	21,759
Lismore . .	17,030	Ararat . .	8,010	Bunbury . .	13,600
Bathurst . .	15,600	Wodonga(c) . .	(e) 7,498	Geraldton . .	11,400
Grafton . .	14,760	Bairnsdale(c) . .	(e) 7,427	Albany . .	10,900
Shellharbour . .	14,500	Maryborough . .	7,240	Midland . .	9,400
Dubbo . .	14,100	Castlemaine . .	7,230	Collie(c) . .	(e) 7,547
Lithgow . .	13,170	Echuca . .	6,660	Northam . .	7,300
Armidale . .	12,500	Swan Hill . .	6,440		
Windsor . .	(e) 12,206	Warragul(c) . .	(e) 6,405		
Woy Woy-Ettalong(c) . .	10,160	Portland . .	6,590		
Taree . .	9,750			<b>Tasmania</b>	
Queanbeyan . .	9,170			Hobart and Suburbs(a) . .	118,828
Cooma . .	(e) 8,515	<b>Queensland</b>		Launceston and Suburbs(b) . .	57,740
Toronto(c) . .	8,370	Brisbane and Suburbs(a) . .	635,500	Burnie(c) . .	14,590
Parkes . .	8,280	Townsville . .	52,600	Devonport(c) . .	13,390
Inverell . .	8,060	Toowoomba . .	51,000	Ulverstone(e) . .	6,070
Casino . .	8,040	Ipswich . .	50,000		
Kempsey . .	(e) 7,696	Rockhampton . .	44,500		
Griffith(c) . .	(e) 7,318	Gold Coast . .	35,000		
Gosford(c) . .	(e) 7,188	Cairns . .	25,700		
Coff's Harbour(c) . .	(e) 7,151	Bundaberg . .	23,100	<b>Northern Territory</b>	
Murwillumbah(c) . .	7,020	Maryborough . .	19,100	Darwin . .	12,700
Moree . .	6,910	Mackay . .	17,000		
Forbes . .	6,670	Mount Isa(c) . .	(e) 13,358		
Gunnedah . .	6,630	Gympie . .	11,200		
Cowra . .	(e) 6,221	Warwick . .	9,900		
Nowra(c) . .	6,110	Ayr(c) . .	(e) 8,010		
Port Macquarie . .	6,006	Dalby . .	7,750	<b>Australian Capital Territory</b>	
The Entrance-Long Jetty(c) . .		Charters Towers . .	7,700	Canberra(a) . .	63,313
		Gladstone . .	7,250		
		Innisfail(c) . .	(e) 6,917		

(a) Metropolitan area. (b) Entire urban area.  
separately incorporated for purpose of local government.  
from 1st January, 1962. (c) 30th June, 1961.

(c) Non-municipal town, i.e., a town not  
(d) Area of Albury municipality increased as

5. **Urban Population Outside Metropolitan Areas.**—The aggregate urban population at the 1961 Census of all cities and towns outside the metropolitan area of each State with 2,000 or more and 3,000 or more urban inhabitants, irrespective of whether such centres were incorporated separately or not, together with the proportion of the aggregate urban population of these cities and towns to the total population of the State, is shown in the following table.

**AGGREGATE URBAN POPULATION OF NON-METROPOLITAN CITIES AND TOWNS OF SPECIFIED SIZE: CENSUS, 30th JUNE, 1961**

(EXCLUDING FULL-BLOOD ABORIGINALS)

State or Territory	Cities and towns outside metropolitan area with urban population of—					
	2,000 and over			3,000 and over		
	Number	Population	Proportion of total population	Number	Population	Proportion of total population
			%			%
New South Wales ..	101	1,074,922	27.44	71	1,002,344	25.59
Victoria ..	60	518,730	17.70	42	474,584	16.20
Queensland ..	53	498,871	32.85	33	451,148	29.70
South Australia ..	21	142,669	14.72	15	128,927	13.30
Western Australia ..	16	102,145	13.87	12	92,443	12.55
Tasmania ..	11	112,821	32.20	7	103,119	29.43
Northern Territory ..	2	16,974	62.65	2	16,974	62.65
Australian Capital Territory(a) ..	..	..	..	..	..	..
<b>Total ..</b>	<b>264</b>	<b>2,467,132</b>	<b>23.48</b>	<b>182</b>	<b>2,269,539</b>	<b>21.60</b>

(a) The only city or town is Canberra, the capital city of Australia, classed as metropolitan.

In the foregoing table, "Urban Areas" comprising two or more local government areas, or portions thereof, are treated as units. The "Urban Areas" so treated are: in New South Wales, Newcastle; in Victoria, Ballarat, Bendigo, Geelong, Latrobe Valley (Urban); in Western Australia, Kalgoorlie; and in Tasmania, Launceston. With the exception of Latrobe Valley (Urban), the areas in each instance are composed of the nucleus town and neighbouring local government areas, either in whole or in part, to form one continuous built-up area. In Latrobe Valley (Urban) there is no nucleus town, but all urban localities are closely associated with the development of the Latrobe Valley brown coal deposits.

A table showing similar data at the 1954 Census was given in Official Year Book No. 47, page 295 and at the 1947 Census in Official Year Book No. 40, page 334. Comparisons between these various tables can be made only if allowance is made for changes in the status and structure of local government areas and for changes in the manner of determining urban population at each Census.

6. **Principal Cities in the World.**—The following table shows the population of the world's largest cities at the latest available date.

## POPULATION OF THE WORLD'S LARGEST CITIES

(Source: United Nations *Demographic Yearbook*, 1960)

(Details for Commonwealth countries are printed in italics)

City	Country	Year	City population ('000)(a)	City	Country	Year	City population ('000)(a)
New York ..	U.S.A. ..	1960	10,695	Seoul(b) ..	Korea ..	1958	1,646
Tokyo ..	Japan ..	1960	9,505	Montreal ..	Canada ..	1956	1,621
London ..	England ..	1959	8,205	Hyderabad ..	India ..	1960	1,619
Shanghai(b) ..	China ..	1957	6,900	Harbin(b) ..	China ..	1957	1,552
Los Angeles ..	U.S.A. ..	1960	6,743	Port Arthur and			
Chicago ..	U.S.A. ..	1960	6,221	Dairen(b) ..	China ..	1957	1,508
Calcutta ..	India ..	1960	5,909	Barcelona ..	Spain ..	1960	1,503
Moscow(b) ..	U.S.S.R. ..	1959	5,032	Nagoya(b) ..	Japan ..	1959	1,502
Bombay(b) ..	India ..	1960	4,941	Minneapolis ..	U.S.A. ..	1960	1,474
Paris ..	France ..	1954	4,823	Milan ..	Italy ..	1959	1,450
Philadelphia ..	U.S.A. ..	1960	4,343	Nanking(b) ..	China ..	1957	1,419
Peking(b) ..	China ..	1957	4,010	Liverpool ..	England ..	1959	1,384
Buenos Aires(b) ..	Argentina ..	1958	3,768	Saigon(b) ..	Viet Nam ..	1959	1,383
Detroit ..	U.S.A. ..	1960	3,762	Athens ..	Greece ..	1951	1,379
Sao Paulo(b) ..	Brazil ..	1960	3,674	Toronto ..	Canada ..	1956	1,358
Leningrad ..	U.S.S.R. ..	1959	3,300	Caracas ..	Venezuela ..	1959	1,356
Berlin(b)(c) ..	Germany ..	1959	3,296	Alexandria ..	Egypt ..	1959	1,350
Tientsin(b) ..	China ..	1957	3,220	Bangkok ..	Thailand ..	1960	1,330
Rio de Janeiro(b) ..	Brazil ..	1959	3,124	Ankara ..	Turkey ..	1960	1,317
Cairo ..	Egypt ..	1959	2,993	Sian(b) ..	China ..	1957	1,310
Osaka(b) ..	Japan ..	1959	2,887	Buffalo ..	U.S.A. ..	1960	1,307
Djakarta(b) ..	Indonesia ..	1959	2,814	Yokohama(b) ..	Japan ..	1959	1,302
San Francisco ..	U.S.A. ..	1960	2,783	Bucharest ..	Romania ..	1959	1,291
Mexico City(b) ..	Mexico ..	1960	2,698	Bangalore(b) ..	India ..	1960	1,269
Boston ..	U.S.A. ..	1960	2,589	Lima(b) ..	Peru ..	1960	1,262
Manchester ..	England ..	1959	2,419	Kyoto(b) ..	Japan ..	1959	1,254
Mukden(b) ..	China ..	1957	2,411	Copenhagen ..	Denmark ..	1958	1,243
Delhi ..	India ..	1960	2,409	Houston ..	U.S.A. ..	1960	1,243
Pittsburgh ..	U.S.A. ..	1960	2,405	Havana ..	Cuba ..	1953	1,218
Birmingham ..	England ..	1959	2,292	Milwaukee ..	U.S.A. ..	1960	1,185
Sydney ..	Australia ..	1962	2,216	Paterson ..	U.S.A. ..	1960	1,184
Madras(b) ..	India ..	1960	2,208	Surabaya(b) ..	Indonesia ..	1959	1,147
Wuhan(b) ..	China ..	1957	2,146	Manila(b) ..	Philippines ..	1960	1,146
Chungking(b) ..	China ..	1957	2,121	Naples ..	Italy ..	1959	1,141
St. Louis ..	U.S.A. ..	1960	2,060	Warsaw(b) ..	Poland ..	1960	1,136
Washington ..	U.S.A. ..	1960	1,968	Stockholm ..	Sweden ..	1959	1,126
Madrid ..	Spain ..	1960	1,966	Bogota(b) ..	Colombia ..	1959	1,124
Melbourne ..	Australia ..	1962	1,956	Tsingtao(b) ..	China ..	1957	1,121
Rome ..	Italy ..	1959	1,947	Chengtu(b) ..	China ..	1957	1,107
Istanbul ..	Turkey ..	1960	1,925	Seattle ..	U.S.A. ..	1960	1,099
Karachi(b) ..	Pakistan ..	1961	1,916	Johannesburg ..	South Africa ..	1960	1,097
Canton(b) ..	China ..	1957	1,840	Fusan(b) ..	Korea ..	1958	1,097
Teheran(b) ..	Iran ..	1960	1,839	Kobe(b) ..	Japan ..	1959	1,086
Hamburg(b) ..	Germany ..	1959	1,815	Dallas ..	U.S.A. ..	1960	1,084
Budapest(b) ..	Hungary ..	1960	1,807	Cincinnati ..	U.S.A. ..	1960	1,068
Glasgow ..	Scotland ..	1958	1,791	Munich ..	Germany ..	1959	1,048
Cleveland ..	U.S.A. ..	1960	1,787	Ahmedabad ..	India ..	1960	1,047
Baltimore ..	U.S.A. ..	1960	1,707	Kansas City (Mo.) ..	U.S.A. ..	1960	1,039
San Diego ..	U.S.A. ..	1959	1,700	San Diego ..	U.S.A. ..	1960	1,033
Leeds ..	England ..	1959	1,693	Taiyuan ..	China ..	1957	1,020
Newark ..	U.S.A. ..	1960	1,683	Atlanta ..	U.S.A. ..	1960	1,011
Vienna(b) ..	Austria ..	1959	1,656				

(a) Urban agglomeration unless otherwise indicated.  
and West Berlin, 2,211,000.

(b) City proper.

(c) East Berlin, 1,085,000

## § 4. Mean Population

1. General.—Mean populations are calculated for twelve-month periods to provide a satisfactory average basis for calculations requiring allowance for the continuous change in population figures during such periods.

From 1901 onwards, the mean population for any year has been calculated by the formula:—

$$\text{Mean Population} = \frac{a + 4b + 2c + 4d + e}{12}$$

where *a*, *b*, *c*, *d* and *e*, respectively, are the populations at the end of the quarter immediately preceding the year and at the end of each of the four succeeding quarters; e.g., in the case

of a calendar year, 31st December of the preceding year and 31st March, 30th June, 30th September and 31st December of the year under consideration. This formula gives a close approximation to the mean of a theoretical population progressing smoothly through the five values *a*, *b*, *c*, *d*, *e*.

2. Results.—(i) *Calendar Years*. The following table shows the mean population of each State and Territory for the calendar years 1953 to 1962.

MEAN POPULATION: CALENDAR YEARS  
(EXCLUDING FULL-BLOOD ABORIGINALS)

Year ended 31st Dec.—	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia
1953 ..	3,386,556	2,395,851	1,287,231	776,355	621,034	306,318	15,534	28,724	8,817,603
1954 ..	3,428,549	2,452,741	1,313,738	796,364	639,963	311,055	16,293	30,424	8,989,127
1955 ..	3,492,799	2,520,481	1,344,445	820,161	657,323	315,565	17,670	32,738	9,201,182
1956 ..	3,556,672	2,592,670	1,377,393	848,563	674,459	321,039	19,155	35,352	9,425,303
1957 ..	3,624,311	2,656,363	1,408,732	874,201	687,448	328,435	20,620	37,999	9,638,109
1958 ..	3,696,049	2,717,371	1,436,156	896,987	699,915	335,382	21,746	41,110	9,844,716
1959 ..	3,762,339	2,783,951	1,464,469	921,106	711,737	341,423	23,623	46,618	10,055,266
1960 ..	3,834,085	2,857,032	1,491,114	944,861	722,900	346,913	25,107	52,562	10,274,574
1961 ..	3,914,718	2,927,526	1,515,516	969,630	737,386	353,613	26,243	58,792	10,503,424
1962 ..	3,980,675	2,990,041	1,539,076	989,385	755,259	359,408	26,973	65,699	10,706,516

(ii) *Financial Years*. The following table shows the mean population of each State and Territory for the years ended 30th June, 1953 to 1962.

MEAN POPULATION: FINANCIAL YEARS  
(EXCLUDING FULL-BLOOD ABORIGINALS)

Year ended 30th June—	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia
1953 ..	3,366,358	2,372,366	1,272,244	766,538	611,191	302,529	15,241	27,721	8,734,188
1954 ..	3,405,414	2,422,839	1,300,464	785,981	630,705	309,416	15,930	29,595	8,900,344
1955 ..	3,459,755	2,485,222	1,328,064	807,510	648,222	312,694	16,853	31,411	9,089,731
1956 ..	3,524,991	2,556,148	1,360,801	834,489	666,898	318,309	18,419	34,132	9,314,187
1957 ..	3,589,128	2,625,609	1,394,088	861,410	680,949	324,666	19,915	36,749	9,532,514
1958 ..	3,660,738	2,687,115	1,422,349	886,021	693,568	332,046	21,239	39,283	9,742,359
1959 ..	3,729,030	2,749,994	1,450,535	908,354	705,869	338,628	22,507	43,429	9,948,346
1960 ..	3,796,452	2,819,650	1,478,129	933,619	717,316	344,111	24,573	50,013	10,163,863
1961 ..	3,875,921	2,893,417	1,503,703	957,136	729,770	350,077	25,673	55,232	10,390,929
1962 ..	3,948,380	2,959,167	1,526,959	980,108	745,805	356,686	26,566	62,433	10,606,104

### § 5. Elements of Increase

1. General.—The two factors which contribute to the growth of a population are “natural increase”, i.e., the excess of births over deaths, and “net migration”, i.e., the excess of arrivals over departures. The “total increase” of the population is obtained by combining natural increase with the increase by net migration. However, comparison of the total increase so obtained with that derived by subtracting the population recorded at one Census from that recorded at the next Census reveals differences which can be attributed partly to differences in the coverage of the Census enumerations, and partly to deficiencies in the records of the elements of increase. The principal source of error in the elements of increase in earlier years lay in migration records, overseas as well as interstate, and adjustments were made to these records for the intercensal periods. With the gradual improvement of records of overseas migration it was considered that from July, 1933, it was no longer possible to attribute the much smaller differences for Australia as a whole solely to records of overseas migration, and since that date the differences, when ascertained for the intercensal period, have been shown as a separate item, with the elements of increase left as recorded. However, it has not been possible to effect a similar improvement in the records of interstate migration, and much of the intercensal differences for particular States may be attributed to deficiencies in this factor.

2. Elements of Increase, 1936-1962, Australia.—In the following table, particulars are given of the elements of increase for each five-year period from 1936 to 1960 and for each of the years 1958 to 1962. The numbers of males, females and persons are shown separately.

## POPULATION: ELEMENTS OF INCREASE

(EXCLUDING FULL-BLOOD ABORIGINALS)

Period				Natural increase(a)	Net migration(b)	Intercensal adjustment(c)	Total increase
MALES							
1936-40	..	..	..	123,262	20,873	3,335	147,470
1941-45	..	..	..	142,605	5,325	3,428	151,353
1946-50	..	..	..	255,335	217,728	-3,484	69,579
1951-55	..	..	..	287,685	240,481	-5,794	522,372
1956-60	..	..	..	328,616	214,210	-3,570	539,256
1958..	..	..	..	66,907	29,663	- 635	95,935
1959..	..	..	..	65,948	41,024	- 704	106,268
1960..	..	..	..	68,786	52,722	- 798	120,710
1961..	..	..	..	72,864	29,055	- 433	101,486
1962..	..	..	..	69,732	28,620	..	98,352
FEMALES							
1936-40	..	..	..	148,995	22,255	3,204	174,454
1941-45	..	..	..	195,073	2,484	3,696	201,253
1946-50	..	..	..	274,112	135,356	-1,763	407,705
1951-55	..	..	..	312,017	173,343	-3,388	481,972
1956-60	..	..	..	351,241	190,812	-1,214	540,839
1958..	..	..	..	71,874	35,703	- 241	107,336
1959..	..	..	..	71,816	35,767	- 241	107,342
1960..	..	..	..	73,076	37,413	- 247	110,242
1961..	..	..	..	78,161	32,468	- 104	110,525
1962..	..	..	..	74,186	33,902	..	108,088
PERSONS							
1936-40	..	..	..	272,257	43,128	6,539	321,924
1941-45	..	..	..	337,678	7,809	7,124	352,611
1946-50	..	..	..	529,447	353,084	-5,247	877,284
1951-55	..	..	..	599,702	413,824	-9,182	1,004,344
1956-60	..	..	..	679,857	405,022	-4,784	1,080,095
1958..	..	..	..	138,781	65,366	- 876	203,271
1959..	..	..	..	137,764	76,791	- 945	213,610
1960..	..	..	..	141,862	90,135	-1,045	230,952
1961..	..	..	..	151,025	61,523	- 537	212,011
1962..	..	..	..	143,918	62,522	..	206,440

(a) Excess of births over deaths. For the period September, 1939, to June, 1947, deaths of defence personnel, whether overseas or in Australia, have been included. (b) Excess of arrivals over departures. Excludes troop movements for the period September, 1939, to June, 1947. (c) Adjustment of population on the basis of the final results of the 1947, 1954 and 1961 Censuses. For periods subsequent to the Census of 30th June, 1961, the intercensal adjustment will not be known until after the next Census has been taken.

3. Analysis of Intercensal Increase, 30th June, 1954, to 30th June, 1961.—In the following table, particulars are given for States and Territories of the recorded elements of increase and the intercensal adjustment for the whole of the seven-year intercensal period from 30th June, 1954, to 30th June, 1961.

As stated in § 1. of this chapter (*see* p. 303), complete records of interstate migration are not available. For this reason, the differences between the estimated populations and those recorded at the Census of 30th June, 1961, i.e., the intercensal adjustments, were substantial for some States.

**POPULATION: ANALYSIS OF INTERCENSAL INCREASE, 30th JUNE, 1954, TO 30th JUNE, 1961**

State or Territory	Population at 30th June, 1954(a)	Natural increase(b)	Net migration (c)	Total recorded increase	Intercensal adjustment (d)	Population at 30th June, 1961(a)
<b>MALES</b>						
New South Wales ..	1,720,860	150,250	86,499	236,749	15,300	1,972,909
Victoria ..	1,231,099	127,005	135,628	262,633	-19,337	1,474,395
Queensland ..	676,252	73,227	8,072	81,299	17,028	774,579
South Australia ..	403,903	41,607	46,432	88,039	-1,717	490,225
Western Australia ..	330,358	38,000	14,723	52,723	-7,629	375,452
Tasmania ..	157,129	19,946	13,120	33,066	-12,567	177,628
Northern Territory ..	10,288	1,753	463	2,216	3,702	16,206
Aust. Capital Territory..	16,229	3,732	10,792	14,524	105	30,858
<i>Australia ..</i>	<i>4,546,118</i>	<i>455,520</i>	<i>315,729</i>	<i>771,249</i>	<i>- 5,115</i>	<i>5,312,252</i>

<b>FEMALES</b>						
New South Wales ..	1,702,669	165,876	86,193	252,069	-10,634	1,944,104
Victoria ..	1,221,242	129,415	126,020	255,435	-20,959	1,455,718
Queensland ..	642,007	80,840	342	81,182	21,060	744,249
South Australia ..	393,191	44,156	39,892	84,048	1,876	479,115
Western Australia ..	309,413	41,432	12,615	54,047	- 2,283	361,177
Tasmania ..	151,623	20,705	- 8,077	12,628	8,461	172,712
Northern Territory ..	6,181	2,118	1,941	4,059	649	10,889
Aust. Capital Territory..	14,086	3,627	10,099	13,726	158	27,970
<i>Australia ..</i>	<i>4,440,412</i>	<i>488,169</i>	<i>269,025</i>	<i>757,194</i>	<i>- 1,672</i>	<i>5,195,934</i>

<b>PERSONS</b>						
New South Wales ..	3,423,529	316,126	172,692	488,818	4,666	3,917,013
Victoria ..	2,452,341	256,420	261,648	518,068	-40,296	2,930,113
Queensland ..	1,318,259	154,067	8,414	162,481	38,088	1,518,828
South Australia ..	797,094	85,763	86,324	172,087	159	969,340
Western Australia ..	639,771	79,432	27,338	106,770	- 9,912	736,629
Tasmania ..	308,752	40,651	5,043	45,694	- 4,106	350,340
Northern Territory ..	16,469	3,871	2,404	6,275	4,351	27,095
Aust. Capital Territory..	30,315	7,359	20,891	28,250	263	58,828
<i>Australia ..</i>	<i>8,986,530</i>	<i>943,689</i>	<i>584,754</i>	<i>1,528,443</i>	<i>- 6,787</i>	<i>10,508,186</i>

(a) Census. (b) Excess of births over deaths. (c) Excess of arrivals over departures for recorded interstate and overseas migration. (d) Adjustment of population on the basis of the Census of 30th June, 1961.

**4. Rate of Population Growth.**—The annual percentage rate of population growth is computed by the compound interest formula. The formula is as follows:—

$$P_1 = P_0 (1 + r)^t$$

where  $P_0$  and  $P_1$  are the populations at the beginning and end of the period respectively,  $t$  is the number of years intervening and  $r$  is the annual rate of growth.

The annual rates of growth of population (per cent.) in Australia during each of the five yearly periods 1936–40 to 1956–60 and the years 1958–1962 are shown in the following table.

**POPULATION: RATE OF GROWTH, AUSTRALIA**  
(Per cent.)

Period	Annual rate of population growth(a)		
	Natural increase(b)	Net migration (c)	Total increase (d)
1936-40 .. .. .	0.79	0.13	0.94
1941-45 .. .. .	1.03	0.02	0.98
1946-50 .. .. .	1.39	0.93	2.26
1951-55 .. .. .	1.40	0.98	2.31
1956-60 .. .. .	1.41	0.86	2.22
1958.. .. .	1.42	0.67	2.09
1959.. .. .	1.38	0.77	2.15
1960.. .. .	1.40	0.89	2.27
1961.. .. .	1.45	0.59	2.04
1962.. .. .	1.36	0.59	1.95

(a) Annual rate representing increase during the period expressed as a proportion (per cent.) at the beginning of the period. (b) Excess of births over deaths. Excess of births over civilian deaths for the period September, 1939, to June, 1947. In calculation of these rates, the following deaths of defence personnel registered in civil registers, 1940, males 272, and 1941, males 418, have been included. (c) Excess of overseas arrivals over departures. (d) Total increase of natural and net migration, together with adjustments for differences disclosed by the results of population censuses up to 30th June, 1961.

The annual rate of population growth during the present century has been 1.71 per cent., but the results from year to year have deviated widely from this figure. In the following table, the period 1st January, 1901, to 31st December, 1962, has been arranged into certain defined groups of years according to the occurrence of influences markedly affecting the growth of population.

**POPULATION: PERIODICAL RATES OF GROWTH**

Period	Interval (years)	Total increase ('000)	Average annual numerical increase ('000)	Annual rate of population growth (per cent.)		
				Natural increase	Net migration	Total
1901 to 1913 .. ..	13	1,128	87	1.59	0.53	2.04
1914 to 1923 .. ..	10	862	86	1.50	0.15	1.64
1924 to 1929 .. ..	6	680	113	1.28	0.64	1.88
1930 to 1939(a) ..	10	569	57	0.82	0.03	0.85
1940 to 1946(a) ..	7	513	73	1.05	0.01	1.01
1947 to 1952(a) ..	6	1,222	204	1.41	1.23	2.54
1953 to 1962 .. ..	10	2,071	207	1.44	0.81	2.15

(a) For the period September, 1939, to June, 1947, overseas movements of Australian defence forces have been excluded and deaths of members of these forces, whether occurring in Australia or overseas, have been included.

Up to 1913, the rate of natural increase was rising, and this factor, coupled with the impetus given to immigration from 1911 onwards by increased governmental assistance, was responsible for the comparatively high annual rate of 2.04 per cent. during this period. The 1914-18 War was a dominating influence in the decade 1914-23, and its effects can be seen in the reduction of the rate from 2.04 to 1.64 per cent. From 1924 to 1929, more settled and prosperous conditions were experienced; encouraged migration was resumed on a large scale and, despite a further decline in the rate of natural increase owing to the persistent fall in the birth rate, the annual rate of growth rose to 1.88 per cent. After 1929 came the economic depression and immigration ceased—in fact, Australia actually lost people through an excess of departures over arrivals in 1930, 1931, 1932 and 1935. The rate of natural increase also fell, and the annual rate of growth of the population fell to 0.85

per cent. With the outbreak of war in 1939, Australia entered a new phase in her demographic history. The immediate effect of the war was to increase the number of marriages and to reverse the downward trend in fertility. The number of births increased each war year from 1940 to 1945, and these increases more than offset the rise in deaths due to war casualties and higher civilian death rates. As might be expected, migration over these years was negligible. The period 1947 to 1962 was marked by a continued high natural increase and a resumption of immigration, the latter resulting in very high net gains in each of the four years 1949 to 1952. The annual rate of growth for the period 1947 to 1952 was 2.54 per cent., and from 1953 to 1962 it was 2.15 per cent.

Rates of population growth from 1881 are shown for each State and Territory of Australia in the annual bulletin, *Demography*.

Estimated rates of growth of the population of Australia in comparison with those for other countries of the world for the years 1953–1960 are shown in the table in § 15. International Statistics of Population.

## § 6. Density

From certain aspects, population may be less significant in respect of its absolute amount than in its relation to the area of the country. Australia, with an area of 2,971,081 square miles and an estimated population at 31st December, 1962, of 10,810,371, excluding full-blood aborigines, has a density of only 3.64 persons to the square mile, and is, therefore, one of the most sparsely populated countries of the world. For other continents and sub-continents, the densities in 1960 were approximately as follows:—Europe (excluding U.S.S.R.), 223; Asia (excluding U.S.S.R.), 161; U.S.S.R., 25; Africa, 22; Northern and Middle America, 28; and South America, 20. The population density of Australia in 1960 was 3.5; about one-sixth of that of South America and of Africa; about one-seventh of that of U.S.S.R.; about one-eighth of that of Northern and Middle America; about one-forty-sixth of that of Asia (excluding U.S.S.R.); and about one sixty-fourth of that of Europe (excluding U.S.S.R.).

Because of the large area of Australia and the unsuitability for settlement of much of the country, the density of population must necessarily increase slowly. In Australia as a whole, the figure has increased from 1.29 per square mile in 1901 to 3.64 in 1962. The rise in density from 1901 to 1962 in each State and Territory was:—New South Wales 4.45 to 12.98, Victoria 13.77 to 34.29, Queensland 0.76 to 2.32, South Australia 0.95 to 2.63, Western Australia 0.20 to 0.78, Tasmania 6.68 to 14.09, Northern Territory 0.01 to 0.05, and Australian Capital Territory 2.05 (in 1911) to 73.29. When comparing the density of population of the several States, consideration should be given to the average annual rainfall distribution in each State as an indication of the climatic influence upon probable population numbers. The proportion of the area of Australia receiving less than 10 inches of rainfall is 38 per cent.; that of the various States is:—New South Wales, 20 per cent.; Victoria, nil; Queensland, 13 per cent.; South Australia, 83 per cent.; Western Australia, 58 per cent.; and Tasmania, nil.

The number and density of population of the principal countries and continental groups of the world are shown in the table in § 15. International Statistics of Population.

## § 7. General Characteristics

NOTE.—The total populations of the States and Territories and of Australia at the 1961 Census shown in this section are final totals, but the details of the various characteristics are subject to minor amendments as later tabulations are completed.

1. *Sex Distribution*.—The number of males to each hundred females has been adopted as a measure of the “masculinity” of the population. The masculinity of the population of each of the States may be obtained for each year from 1796 to 1900 from the table on pages 163–5 of Official Year Book No. 2 and for the years 1901 to 1910 from the table on page 123 of issue No. 5.

With the exception of some dislocation arising from the two World Wars, there was a continuous diminution of the masculinity of the population until 1945. This resulted from the increasing proportion of the population in the higher age groups, in which females preponderate owing to their greater longevity, and from the general long-term fall in the birth rate. At the 1947 Census, the numbers of the sexes were practically equal, but there has since been an increase in masculinity owing to the greater number of males as compared with females in net overseas migration, which offsets the femininity of natural increase.



The following table shows the masculinity of the population at ten-year intervals from 1900 to 1960 and for each of the years 1957 to 1962.

POPULATION: MASCULINITY, 1900 TO 1962  
(NUMBER OF MALES PER 100 FEMALES)

At 31st December—	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1900 ..	111.14	101.23	125.33	101.95	157.54	107.97	753.60	(a)	110.55
1910 ..	109.23	98.71	119.02	103.12	132.90	104.14	486.32	(a)	107.87
1920 ..	104.31	97.38	112.00	99.83	114.55	101.67	270.04	116.70	103.47
1930 ..	103.39	99.14	110.66	100.97	117.17	101.53	263.66	118.69	103.85
1940 ..	100.98	97.85	108.48	98.91	110.38	102.74	240.31	124.62	101.81
1950 ..	100.88	99.27	106.02	101.83	106.07	102.70	188.05	123.33	101.83
1960 ..	101.38	101.61	104.16	102.24	103.99	100.73	147.82	111.51	102.22
1957 ..	101.50	101.60	104.72	102.41	105.06	100.23	152.04	113.81	102.41
1958 ..	101.24	101.47	104.33	101.95	104.54	99.75	147.75	114.81	102.13
1959 ..	101.17	101.52	104.24	102.00	103.92	99.56	149.15	111.98	102.06
1960 ..	101.38	101.61	104.16	102.24	103.99	100.73	147.82	111.51	102.22
1961 ..	100.93	101.06	104.19	102.23	103.74	104.03	152.03	110.46	102.00
1962 ..	100.68	101.05	103.81	101.91	103.42	103.45	150.66	109.98	101.78

(a) Part of New South Wales prior to 1911.

The masculinity of the population in the principal countries of the world is shown in the table in § 15. International Statistics of Population.

2. Age Distribution.—(i) 1954 and 1961 Censuses. The following table shows the variation which took place in the age distribution of the population during the 7 years following the 1954 Census.

POPULATION: ADJUSTED AGE DISTRIBUTION(a), AUSTRALIA, 1954 AND 1961  
(EXCLUDING FULL-BLOOD ABORIGINALS)

Age last birthday (years)	Census, 30th June, 1954			Census, 30th June, 1961			Increase, 1954-61
	Males	Females	Persons	Males	Females	Persons	
0-4 ..	493,682	472,735	966,417	567,754	541,780	1,109,534	143,117
5-9 ..	461,903	440,834	902,737	536,030	511,435	1,047,465	144,728
10-14 ..	354,075	340,105	694,180	522,399	497,599	1,019,998	325,818
15-19 ..	302,287	289,484	591,771	414,786	394,087	808,873	217,102
20-24 ..	311,979	288,187	600,166	361,535	335,920	697,455	97,289
25-29 ..	368,639	336,178	704,817	342,436	313,610	656,046	-48,771
30-34 ..	364,238	343,605	707,843	386,181	351,831	738,012	30,169
35-39 ..	325,768	317,355	643,123	395,245	372,643	767,888	124,765
40-44 ..	323,418	305,010	628,428	343,977	334,627	678,604	50,176
45-49 ..	286,705	260,224	546,929	335,887	321,899	657,786	110,857
50-54 ..	246,061	233,140	479,201	293,006	275,060	568,066	88,865
55-59 ..	193,148	204,122	397,270	238,053	225,299	463,352	66,082
60-64 ..	178,947	198,695	377,642	190,808	210,059	400,867	23,225
65-69 ..	143,140	160,172	303,312	149,129	184,643	333,772	30,460
70-74 ..	94,961	115,429	210,390	116,945	148,065	265,010	54,620
75-79 ..	55,104	72,738	127,842	69,222	95,708	164,930	37,088
80-84 ..	27,972	40,470	68,442	33,067	52,630	85,697	17,255
85-89 ..	11,025	16,618	27,643	12,215	21,732	33,947	6,304
90-94 ..	2,726	4,613	7,339	3,087	6,115	9,202	1,863
95 and over ..	340	698	1,038	490	1,192	1,682	644
Total ..	4,546,118	4,440,412	8,986,530	5,312,252	5,195,934	10,508,186	1,521,656
Under 21 years ..	1,668,770	1,596,959	3,265,729	2,113,610	2,014,647	4,128,257	862,528
21 years and over ..	2,877,348	2,843,453	5,720,801	3,198,642	3,181,287	6,379,929	659,128
Total ..	4,546,118	4,440,412	8,986,530	5,312,252	5,195,934	10,508,186	1,521,656

(a) At the 1954 and 1961 Censuses, unspecified ages were distributed over all ages prior to tabulation.

NOTE.—Minus sign (—) denotes decrease.

Of the 10,508,186 persons enumerated at the 1961 Census, 39.3 per cent. were under 21 years of age; 52.2 per cent. were 21 to 64 years; and 8.5 per cent. were aged 65 years and over. At the 1954 Census, 36.3 per cent. were under 21 years of age; 55.4 per cent. were 21-64 years; and 8.3 per cent. were aged 65 years and over.

(ii) *Proportional Distribution, Censuses, 1871 to 1961.* The next table shows the changes which have taken place in the age distribution of the population of Australia since 1871.

**POPULATION: PROPORTIONAL AGE DISTRIBUTION, AUSTRALIA, 1871 TO 1961**

(Per cent.)

Census	Males				Females				Persons			
	Under 15 years	15 years and under 65	65 years and over	Total	Under 15 years	15 years and under 65	65 years and over	Total	Under 15 years	15 years and under 65	65 years and over	Total
1871..	38.84	59.11	2.05	100	46.02	52.60	1.38	100	42.09	56.17	1.74	100
1881..	36.36	60.81	2.83	100	41.86	56.03	2.11	100	38.89	58.61	2.50	100
1891..	34.80	62.01	3.19	100	39.38	58.09	2.53	100	36.92	60.19	2.89	100
1901..	33.89	61.80	4.31	100	36.51	59.88	3.61	100	35.14	60.88	3.98	100
1911..	30.84	64.82	4.34	100	32.52	63.28	4.20	100	31.65	64.08	4.27	100
1921..	31.64	63.88	4.48	100	31.79	63.83	4.38	100	31.71	63.86	4.43	100
1933..	27.53	66.09	6.38	100	27.42	65.99	6.59	100	27.48	66.04	6.48	100
1947..	25.49	67.08	7.43	100	24.62	66.71	8.67	100	25.06	66.89	8.05	100
1954..	28.81	63.82	7.37	100	28.23	62.52	9.25	100	28.52	63.18	8.30	100
1961..	30.61	62.16	7.23	100	29.85	60.33	9.82	100	30.23	61.26	8.51	100

(iii) *States and Territories.* The following table shows particulars of the age distribution of the population of each State and Territory at the 1961 Census.

**POPULATION: AGE DISTRIBUTION, CENSUS 30th JUNE, 1961**

(EXCLUDING FULL-BLOOD ABORIGINALS)

Age last birthday (years)	N.S.W.	Victoria	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
0-4 ..	396,577	307,535	167,371	103,019	81,916	41,694	3,587	7,835	1,109,534
5-9 ..	373,620	288,757	156,686	99,408	80,752	38,715	2,700	6,827	1,047,465
10-14 ..	369,409	277,848	151,803	99,028	77,041	36,890	1,990	5,989	1,019,998
15-19 ..	301,434	219,364	122,226	74,513	57,739	27,756	1,489	4,352	808,873
20-24 ..	263,054	195,076	100,088	60,433	47,879	23,121	3,070	4,734	697,455
25-29 ..	248,059	186,725	91,785	56,434	44,320	21,147	2,910	4,666	656,046
30-34 ..	279,890	209,543	100,383	67,253	49,648	23,277	2,854	5,164	738,012
35-39 ..	291,131	217,857	103,888	72,444	50,633	24,116	2,375	5,444	767,888
40-44 ..	259,899	187,624	95,928	64,016	43,665	21,797	1,616	4,059	678,604
45-49 ..	250,393	181,825	93,113	61,604	45,275	21,063	1,409	3,104	657,786
50-54 ..	216,529	158,847	80,336	50,915	40,375	17,830	1,046	2,188	568,066
55-59 ..	173,634	131,730	65,941	40,761	34,834	14,148	778	1,526	463,352
60-64 ..	150,511	115,030	59,691	34,656	27,455	11,777	582	1,165	400,867
65-69 ..	126,578	95,755	49,360	30,906	20,241	9,791	349	792	333,772
70-74 ..	103,203	73,620	38,756	25,120	15,742	7,868	181	520	265,010
75-79 ..	64,381	45,364	23,258	16,376	10,065	5,111	100	275	164,930
80-84 ..	32,413	24,232	12,050	8,290	5,810	2,735	40	127	85,697
85-89 ..	12,448	10,080	4,609	3,139	2,474	1,138	15	44	33,947
90-94 ..	3,243	2,809	1,303	868	651	308	3	17	9,202
95 and over ..	607	492	253	157	114	58	1	..	1,682
<b>Total ..</b>	<b>3,917,013</b>	<b>2,930,113</b>	<b>1,518,828</b>	<b>969,340</b>	<b>736,629</b>	<b>350,340</b>	<b>27,095</b>	<b>58,828</b>	<b>10,508,186</b>

(iv) *Estimated Age Distribution, 30th June, 1962.* The exact age distribution of the population is obtained only at census dates, but estimates, based on the census distribution and on births, recorded ages at death, and recorded ages of migrants, are made for inter-censal years. The following table shows the estimated age distribution of the Australian population at 30th June, 1962.

**POPULATION: ESTIMATED AGE DISTRIBUTION, AUSTRALIA, (a) 30th JUNE, 1962**  
(EXCLUDING FULL-BLOOD ABORIGINALS)

Age last birthday (years)						Males	Females	Persons
0-4	..	..	..	..	..	578,186	552,343	1,130,529
5-9	..	..	..	..	..	544,385	519,292	1,063,677
10-14	..	..	..	..	..	519,922	495,440	1,015,362
15-19	..	..	..	..	..	450,670	428,515	879,185
20-24	..	..	..	..	..	369,259	348,456	717,715
25-29	..	..	..	..	..	344,456	320,838	665,294
30-34	..	..	..	..	..	377,699	345,929	723,628
35-39	..	..	..	..	..	395,262	371,509	766,771
40-44	..	..	..	..	..	357,475	346,062	703,537
45-49	..	..	..	..	..	334,810	324,424	659,234
50-54	..	..	..	..	..	300,344	283,383	583,727
55-59	..	..	..	..	..	245,028	232,769	477,797
60-64	..	..	..	..	..	196,149	211,598	407,747
65-69	..	..	..	..	..	148,656	185,827	334,483
70-74	..	..	..	..	..	118,111	151,269	269,380
75-79	..	..	..	..	..	72,059	100,703	172,762
80-84	..	..	..	..	..	33,785	53,694	87,479
85 and over	..	..	..	..	..	16,176	30,638	46,814
Total	..	..	..	..	..	5,402,432	5,302,689	10,705,121

(a) Based on the age distribution at the Census of 30th June, 1961 (adjusted only for "not stated" ages), and on subsequent births, recorded ages at death and recorded ages of migrants.

3. *Conjugal Condition.*—(i) *Censuses, 30th June, 1954 and 1961.* Of the total population of Australia at the 1961 Census, 48.0 per cent. were never married; 46.2 per cent. were married (including 1.4 per cent. married but permanently separated); 5.0 per cent. were widowed and 0.8 per cent. were divorced. Between 1954 and 1961, the number never married increased by 19.8 per cent.; those married (including permanently separated) by 14.8 per cent.; the widowed by 13.0 per cent. and the divorced by 18.7 per cent.

The ratio of widowed females to widowed males increased from 311 : 100 in 1954 to 352 : 100 in 1961. This disparity between the number of widowed males and widowed females is the result of two influences. The first is the greater longevity of females coupled with the usually younger age at marriage; and the second is that a larger proportion of males cancel their widowhood by remarriage.

The ratio of males to females in the never married group "15 years of age and over" increased from 141 : 100 in 1954 to 143 : 100 in 1961.

The numbers of males, females and persons recorded at the Censuses of 30th June, 1954 and 1961, are shown in the following table according to their conjugal condition.

**POPULATION: CONJUGAL CONDITION, AUSTRALIA, 1954 AND 1961**

(EXCLUDING FULL-BLOOD ABORIGINALS)

Conjugal condition	Census, 30th June, 1954			Census, 30th June, 1961			Increase, 1954-61
	Males	Females	Persons	Males	Females	Persons	
Never married—							
Under 15 years of age ..	1,309,660	1,253,674	2,563,334	1,626,183	1,550,814	3,176,997	613,663
15 years of age and over ..	962,491	684,154	1,646,645	1,098,484	770,070	1,868,554	221,909
Total ..	2,272,151	1,937,828	4,209,979	2,724,667	2,320,884	5,045,551	835,572
Married ..	2,062,122	2,043,651	4,105,773	2,364,687	2,344,654	4,709,341	603,568
Married but permanently separated ..	57,371	66,228	123,599	68,172	78,434	146,606	23,007
Widowed ..	113,064	351,102	464,166	116,085	408,623	524,708	60,542
Divorced ..	32,389	36,650	69,039	38,641	43,339	81,980	12,941
Not stated ..	9,021	4,953	13,974	(a)	(a)	(a)	-13,974
Grand Total ..	4,546,118	4,440,412	8,986,530	5,312,252	5,195,934	10,508,186	1,521,656

(a) In processing the 1961 Census data, a conjugal condition was allocated prior to tabulation in all instances where this information was not stated.

NOTE.—Minus sign (—) denotes decrease.

(ii) *States and Territories Census, 30th June, 1961.* The following table shows particulars of the conjugal condition of the population of each State and Territory at the 1961 Census.

**POPULATION: CONJUGAL CONDITION, CENSUS, 30th JUNE, 1961**

(EXCLUDING FULL-BLOOD ABORIGINALS)

Conjugal condition	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
Never married—									
Under 15 years of age ..	1,139,606	874,140	475,860	301,455	239,709	117,299	8,277	20,651	3,176,997
15 years of age and over ..	701,140	526,080	282,210	159,956	123,815	58,039	7,050	10,264	1,868,554
Total ..	1,840,746	1,400,220	758,070	461,411	363,524	175,338	15,327	30,915	5,045,551
Married ..	1,771,916	1,325,446	656,082	443,903	323,294	153,014	10,116	25,570	4,709,341
Married but permanently separated ..	59,241	40,229	21,406	10,589	9,830	4,096	704	511	146,606
Widowed ..	208,276	145,437	73,685	46,277	33,457	15,563	565	1,448	524,708
Divorced ..	36,834	18,781	9,585	7,160	6,524	2,329	383	384	81,980
Grand Total	3,917,013	2,930,113	1,518,828	969,340	736,629	350,340	27,095	58,828	10,508,186

4. *Birthplace.*—(i) *Censuses, 30th June, 1954 and 1961.* At 30th June, 1961, the Australian-born element of the population of Australia represented 83.1 per cent. as compared with 85.7 per cent. at the 1954 Census. The number of Australian-born increased by 1,028,950 or 13.4 per cent. between 1954 and 1961, while the oversea-born population increased by 492,706 or 38.3 per cent. The latter resulted mainly from the increase of 441,203 in the number of persons of European birthplace between 1954 and 1961—principally persons born in Italy (an increase of 107,792); United Kingdom and Republic of Ireland (91,371); Greece (51,494); and the Netherlands (50,143).

Of persons born outside Australia, 55.5 per cent. were males and 44.5 per cent. females.

The following table shows the birthplaces of the population recorded at the Census of 30th June, 1961, as compared with the Census of 30th June, 1954.

**POPULATION: BIRTHPLACES, AUSTRALIA, 1954 AND 1961**  
(EXCLUDING FULL-BLOOD ABORIGINALS)

Birthplace	Census, 30th June, 1954			Census, 30th June, 1961			Increase, 1954-61
	Males	Females	Persons	Males	Females	Persons	
<i>Australia</i> .. ..	3,812,435	3,887,629	7,700,064	4,324,722	4,404,292	8,729,014	1,028,950
<i>New Zealand</i> .. ..	21,723	21,627	43,350	23,343	23,632	46,975	3,625
<i>Europe—</i>							
<i>United Kingdom and</i>							
<i>Republic of Ireland</i> ..	359,010	305,195	664,205	400,594	354,982	755,576	91,371
<i>Germany</i> .. ..	33,663	31,759	65,422	57,573	51,737	109,310	43,888
<i>Greece</i> .. ..	16,794	9,068	25,862	43,753	33,603	77,356	51,494
<i>Italy</i> .. ..	80,279	39,618	119,897	134,008	93,681	227,689	107,792
<i>Malta</i> .. ..	12,411	7,577	19,988	22,669	16,701	39,370	19,382
<i>Netherlands</i> .. ..	30,046	21,989	52,035	56,898	45,280	102,178	50,143
<i>Poland</i> .. ..	35,652	20,942	56,594	36,390	23,654	60,044	3,450
<i>Other</i> .. ..	91,848	59,213	151,061	134,445	90,299	224,744	73,683
<i>Total, Europe</i> .. ..	659,703	495,361	1,155,064	886,330	709,937	1,596,267	441,203
<i>Other Birthplaces</i> ..	52,257	35,795	88,052	77,857	58,073	135,930	47,878
<i>Total born outside</i>							
<i>Australia</i> ..	733,683	552,783	1,286,466	987,530	791,642	1,779,172	492,706
<i>Grand Total</i> ..	4,546,118	4,440,412	8,986,530	5,312,252	5,195,934	10,508,186	1,521,656

(ii) *States and Territories, Census, 30th June, 1961.* The following table shows particulars of the birthplaces of the population of each State and Territory at the 1961 Census.

**POPULATION: BIRTHPLACES, CENSUS, 30th JUNE, 1961**  
(EXCLUDING FULL-BLOOD ABORIGINALS)

Birthplace	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
<i>Australia</i> ..	3,290,166	2,360,331	1,341,050	783,201	572,170	317,443	21,520	43,133	8,729,014
<i>New Zealand</i> ..	24,194	11,470	5,756	1,822	1,911	1,127	246	449	46,975
<i>Europe—</i>									
<i>United Kingdom and</i>									
<i>Republic of Ireland</i> ..	269,016	206,529	93,354	78,828	83,370	16,746	2,072	5,661	755,576
<i>Germany</i> .. ..	35,767	39,288	8,466	16,010	5,582	2,224	461	1,512	109,310
<i>Greece</i> .. ..	26,751	31,660	3,979	9,476	4,087	486	549	368	77,356
<i>Italy</i> .. ..	62,354	90,829	19,772	26,106	25,251	1,536	565	1,276	227,689
<i>Malta</i> .. ..	17,078	17,851	1,829	1,775	536	71	15	215	39,370
<i>Netherlands</i> .. ..	27,674	36,224	9,557	12,672	11,167	3,556	167	1,161	102,178
<i>Poland</i> .. ..	18,483	23,794	3,771	6,941	4,711	1,608	70	666	60,044
<i>Other</i> .. ..	87,119	73,540	17,541	24,011	15,090	3,620	696	3,127	224,744
<i>Total, Europe</i>	544,242	519,715	158,269	175,819	149,794	29,847	4,595	13,986	1,596,267
<i>Other Birth-</i>									
<i>places</i>	58,411	38,597	13,753	8,498	12,754	1,923	734	1,260	135,930
<i>Total born out-</i>									
<i>side Australia</i>	626,847	569,782	177,778	186,139	164,459	32,897	5,575	15,695	1,779,172
<i>Grand Total</i>	3,917,013	2,930,113	1,518,828	969,340	736,629	350,340	27,095	58,828	10,508,186

5. *Period of Residence in Australia.*—(i) *Censuses, 30th June, 1954 and 1961.* The post-war migration flow into Australia is shown in the following table which classifies the over-sea-born population of Australia according to period of residence in Australia.

**PERIOD OF RESIDENCE IN AUSTRALIA OF PERSONS BORN OUTSIDE  
AUSTRALIA: CENSUSES, 1954 AND 1961**

Period of residence (years)	Census, 30th June, 1954			Census, 30th June, 1961			Increase, 1954-61
	Males	Females	Persons	Males	Females	Persons	
<b>Born outside Australia—</b>							
Under 1 ..	47,430	34,841	82,271	72,321	51,195	123,516	41,245
1 and under 2 ..	32,228	27,096	59,324	48,605	38,376	86,981	27,657
2 " " 3 ..	65,374	39,354	104,728	47,135	42,932	90,067	-14,661
3 " " 4 ..	71,183	50,367	121,550	37,744	41,249	78,993	-42,557
4 " " 5 ..	87,636	62,200	149,836	42,600	41,279	83,879	-65,957
5 " " 6 ..	64,618	45,416	110,034	54,094	42,073	96,167	-13,867
6 " " 7 ..	21,522	15,424	36,946	51,833	40,209	92,042	55,096
7 " " 14 ..	331,417	268,228	599,645	345,594	254,847	600,441	490,762
14 " " 21 ..				22,451	17,839	40,290	
21 and over ..				244,043	205,633	449,676	
Not stated ..	12,275	9,857	22,132	21,110	16,010	37,120	14,988
<b>Total born outside Australia</b>	<b>733,683</b>	<b>552,783</b>	<b>1,286,466</b>	<b>987,530</b>	<b>791,642</b>	<b>1,779,172</b>	<b>492,706</b>
<b>Born in Australia(a) ..</b>	<b>3,812,435</b>	<b>3,887,629</b>	<b>7,700,064</b>	<b>4,324,722</b>	<b>4,404,292</b>	<b>8,729,014</b>	<b>1,028,950</b>
<b>Grand Total ..</b>	<b>4,546,118</b>	<b>4,440,412</b>	<b>8,986,530</b>	<b>5,312,252</b>	<b>5,195,934</b>	<b>10,508,186</b>	<b>1,521,656</b>

NOTE.—Minus sign (—) denotes decrease.

(a) Excludes full-blood Aborigines.

(ii) *States and Territories, Census 30th June, 1961.* The following table shows particulars of the period of residence in Australia of persons born outside Australia, for each State and Territory at the 1961 Census.

**PERIOD OF RESIDENCE IN AUSTRALIA OF PERSONS BORN OUTSIDE  
AUSTRALIA: CENSUS, 30th JUNE, 1961**

Period of residence (years)	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
<b>Born outside Australia—</b>									
Under 1 ..	45,754	42,152	9,273	15,233	7,374	2,009	450	1,271	123,516
1 and under 2 ..	31,007	29,880	6,249	12,345	4,227	1,768	354	1,151	86,981
2 " " 3 ..	30,862	31,748	6,615	12,918	4,718	1,695	430	1,081	90,067
3 " " 4 ..	26,500	28,874	6,300	9,501	4,844	1,656	286	1,032	78,993
4 " " 5 ..	29,011	30,749	6,379	10,183	4,533	1,605	303	1,116	83,879
5 " " 6 ..	29,439	37,825	6,679	12,313	6,828	1,755	363	965	96,167
6 " " 7 ..	28,564	35,702	6,258	11,274	7,380	1,376	336	1,152	92,042
7 " " 14 ..	196,279	202,403	52,715	68,876	58,735	13,772	1,840	5,821	600,441
14 " " 21 ..	17,230	10,529	4,026	2,651	4,193	1,084	166	411	40,290
21 and over ..	178,548	108,864	68,687	27,499	58,170	5,433	932	1,543	449,676
Not stated ..	13,653	11,056	4,597	3,346	3,457	744	115	152	37,120
<b>Total born outside Australia ..</b>	<b>626,847</b>	<b>569,782</b>	<b>177,778</b>	<b>186,139</b>	<b>164,459</b>	<b>32,897</b>	<b>5,575</b>	<b>15,695</b>	<b>1,779,172</b>
<b>Born in Australia(a) ..</b>	<b>3,290,166</b>	<b>2,360,331</b>	<b>1,341,050</b>	<b>783,201</b>	<b>572,170</b>	<b>317,443</b>	<b>21,520</b>	<b>43,133</b>	<b>8,729,014</b>
<b>Grand Total ..</b>	<b>3,917,013</b>	<b>2,930,113</b>	<b>1,518,828</b>	<b>969,340</b>	<b>736,629</b>	<b>350,340</b>	<b>27,095</b>	<b>58,828</b>	<b>10,508,186</b>

(a) Excludes full-blood Aborigines.

6. *Nationality.*—(i) *Censuses, 30th June, 1954 and 1961.* At 30th June, 1961, 9,983,634 persons, or 95.0 per cent. of the Australian population, were of British nationality (consisting of 83.1 per cent. born in Australia and 11.9 per cent. born outside), compared with 95.5 per cent. in 1954 (85.7 per cent. born in Australia and 9.8 per cent. born outside). Of the overseas-born population in 1961, 70.5 per cent. were British subjects, compared with 68.6 per cent. in 1954.

The following table shows the numbers of males, females and persons at the 1954 and 1961 Censuses classified by nationality (i.e. allegiance).

**POPULATION: NATIONALITY (i.e., ALLEGIANCE), AUSTRALIA, 1954 AND 1961**  
(EXCLUDING FULL-BLOOD ABORIGINALS)

Nationality	Census, 30th June, 1954			Census, 30th June, 1961			Increase, 1954-61
	Males	Females	Persons	Males	Females	Persons	
<b>British(a)—</b>							
Born in Australia ..	3,812,435	3,887,629	7,700,064	4,324,722	4,404,292	8,729,014	1,028,950
Born outside Australia ..	484,798	397,389	882,187	686,145	568,475	1,254,620	372,433
<i>Total, British</i> ..	<i>4,297,233</i>	<i>4,285,018</i>	<i>8,582,251</i>	<i>5,010,867</i>	<i>4,972,767</i>	<i>9,983,634</i>	<i>1,401,383</i>
<b>Foreign—</b>							
Dutch ..	30,518	22,940	53,458	41,156	34,606	75,762	22,304
German ..	17,262	14,186	31,448	34,312	26,165	60,477	29,029
Greek ..	11,415	6,428	17,843	32,755	28,128	60,883	43,040
Hungarian ..	5,910	3,746	9,656	8,210	5,790	14,000	4,344
Italian ..	61,673	28,345	90,018	86,935	67,091	154,026	64,008
Latvian, Lithuanian and Estonian ..	16,735	13,893	30,628	4,174	2,937	7,111	-23,517
Polish ..	29,524	20,222	49,746	12,949	9,468	22,417	-27,329
Ukrainian ..	9,871	7,368	17,239	2,920	2,109	5,029	-12,210
Yugoslavian ..	11,633	6,491	18,124	17,764	9,632	27,396	9,272
Other (incl. Stateless) ..	54,344	31,775	86,119	60,210	37,241	97,451	11,332
<i>Total, Foreign</i> ..	<i>248,885</i>	<i>155,394</i>	<i>404,279</i>	<i>301,385</i>	<i>223,167</i>	<i>524,552</i>	<i>120,273</i>
<b>Grand Total</b> ..	<b>4,546,118</b>	<b>4,440,412</b>	<b>8,986,530</b>	<b>5,312,252</b>	<b>5,195,934</b>	<b>10,508,186</b>	<b>1,521,656</b>

(a) All persons of individual citizenship status who, by virtue of the *Nationality and Citizenship Act 1948*, are deemed to be British subjects. Includes naturalized British. For purposes of this table Irish nationality is included with British.

NOTE.—Minus sign (—) denotes decrease.

(ii) *States and Territories, Census, 30th June, 1961.* The following table shows the nationality (i.e. allegiance) of the population of each State and Territory at the 1961 Census.

**POPULATION: NATIONALITY (i.e. ALLEGIANCE), CENSUS, 30th JUNE, 1961**  
(EXCLUDING FULL-BLOOD ABORIGINALS)

Nationality	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
<b>British(a)—</b>									
Born in Australia ..	3,290,166	2,360,331	1,341,050	783,201	572,170	317,443	21,520	43,133	8,729,014
Born outside Australia ..	449,981	363,935	143,355	128,361	130,589	24,956	3,671	9,772	1,254,620
<i>Total, British</i>	<i>3,740,147</i>	<i>2,724,266</i>	<i>1,484,405</i>	<i>911,562</i>	<i>702,759</i>	<i>342,399</i>	<i>25,191</i>	<i>52,905</i>	<i>9,983,634</i>
<b>Foreign—</b>									
Dutch ..	20,942	27,578	6,862	9,892	7,368	2,241	93	786	75,762
German ..	20,777	23,895	3,132	8,288	1,897	1,224	341	923	60,477
Greek ..	20,967	28,072	1,861	7,039	1,882	381	405	276	60,883
Hungarian ..	6,233	5,424	552	1,170	229	171	61	160	14,000
Italian ..	42,554	68,396	8,698	17,873	13,905	1,214	381	1,005	154,026
Latvian, Lithuanian and Estonian ..	2,516	2,438	529	879	516	111	12	110	7,111
Polish ..	7,377	8,164	1,588	2,390	1,774	649	30	445	22,417
Ukrainian ..	1,852	1,799	305	598	296	103	2	74	5,029
Yugoslav ..	10,188	10,391	1,494	2,310	2,173	397	63	380	27,396
Other (including Stateless) ..	43,460	29,690	9,402	7,339	3,830	1,450	516	1,764	97,451
<i>Total, Foreign</i>	<i>176,866</i>	<i>205,847</i>	<i>34,423</i>	<i>57,778</i>	<i>33,870</i>	<i>7,941</i>	<i>1,904</i>	<i>5,923</i>	<i>524,552</i>
<b>Grand Total</b>	<b>3,917,013</b>	<b>2,930,113</b>	<b>1,518,828</b>	<b>969,340</b>	<b>736,629</b>	<b>350,340</b>	<b>27,095</b>	<b>58,828</b>	<b>10,508,186</b>

(a) All persons of individual citizenship status who, by virtue of the *Nationality and Citizenship Act 1948*, are deemed to be British subjects. Includes naturalized British. For purposes of this table Irish nationality is included with British.

7. Religion.—(i) *Censuses, 30th June, 1954 and 1961.* At the 1921 Census, 92,258 persons in Australia, or 1.7 per cent., gave no reply to this question, but at the Censuses of 1933, 1947, 1954 and 1961, when the public was informed that there was no legal obligation to answer this question, 848,948 persons (12.8 per cent.), 824,824 (10.9 per cent.), 855,819 (9.5 per cent.) and 1,102,930 (10.5 per cent.) respectively, gave no reply. Of males 11.2 per cent., and of females 9.8 per cent., did not state their religion in 1961.

Amongst the denominations with the larger numbers of adherents, the greatest proportional increase since 1954 was recorded by Roman Catholic and Catholic combined, 27.1 per cent.; then Presbyterian, 12.2 per cent.; Methodist, 10.1 per cent.; Church of England, 7.6 per cent. The largest proportional increase was that of the Greek Orthodox denomination, 107.3 per cent.

At the 1961 Census, as at earlier censuses, 99 per cent. of those who stated their religion professed the Christian faith. Between 1954 and 1961 the number who stated they were of non-Christian religion increased by 26 per cent., while those specifically stating they had no religion increased by 59 per cent.

The following table shows the number of adherents of the various religions as recorded at the Censuses of 30th June, 1954, and 30th June, 1961.

## POPULATION: RELIGION, AUSTRALIA, 1954 AND 1961

(EXCLUDING FULL-BLOOD ABORIGINALS)

Religion	Census, 30th June, 1954			Census, 30th June, 1961			Increase, 1954-61
	Males	Females	Persons	Males	Females	Persons	
Christian—							
Baptist .. ..	60,048	67,396	127,444	70,989	78,830	149,819	22,375
Brethren .. ..	7,511	8,893	16,404	7,264	8,259	15,523	-881
Catholic, Roman(a) ..	413,719	347,383	761,102	602,762	536,896	1,139,658	378,556
Catholic(a) .. ..	635,398	664,486	1,299,884	730,093	750,260	1,480,353	180,469
Churches of Christ ..	37,880	42,484	80,364	45,114	50,527	95,641	15,277
Church of England ..	1,709,197	1,699,653	3,408,850	1,834,736	1,834,195	3,668,931	260,081
Congregational .. ..	32,508	36,944	69,452	34,679	38,847	73,526	4,074
Greek Orthodox .. ..	44,382	30,363	74,745	84,965	69,959	154,924	80,179
Lutheran .. ..	60,306	55,872	116,178	82,452	77,729	160,181	44,003
Methodist .. ..	478,605	499,328	977,933	528,004	548,391	1,076,395	98,462
Presbyterian .. ..	430,798	439,444	870,242	482,503	494,015	976,518	106,276
Protestant (undefined) ..	48,539	46,877	95,416	50,516	48,035	98,551	3,135
Salvation Army .. ..	20,304	22,534	42,838	24,379	26,705	51,084	8,246
Seventh-day Adventist ..	11,166	14,163	25,329	14,312	17,314	31,626	6,297
Other (including Christian undefined) .. ..	31,957	35,616	67,573	48,626	52,770	101,396	33,823
<i>Total, Christian .. ..</i>	<i>4,022,318</i>	<i>4,011,436</i>	<i>8,033,754</i>	<i>4,641,394</i>	<i>4,632,732</i>	<i>9,274,126</i>	<i>1,240,372</i>
Non-Christian—							
Hebrew .. ..	24,548	23,888	48,436	29,571	29,772	59,343	10,907
Other .. ..	4,910	1,471	6,381	6,547	2,928	9,475	3,094
<i>Total, Non-Christian ..</i>	<i>29,458</i>	<i>25,359</i>	<i>54,817</i>	<i>36,118</i>	<i>32,700</i>	<i>68,818</i>	<i>14,001</i>
Indefinite .. ..	10,038	8,418	18,456	13,495	11,267	24,762	6,306
No religion .. ..	16,652	7,032	23,684	25,206	12,344	37,550	13,866
No reply .. ..	467,652	388,167	855,819	596,039	506,891	1,102,930	247,111
<i>Grand Total .. ..</i>	<i>4,546,118</i>	<i>4,440,412</i>	<i>8,986,530</i>	<i>5,312,252</i>	<i>5,195,934</i>	<i>10,508,186</i>	<i>1,521,656</i>

(a) So described in individual Census Schedules.

NOTE.—Minus sign (—) denotes decrease.



(ii) *States and Territories, Census, 30th June, 1961.* The following table shows particulars of the religions of the population of each State and Territory at the 1961 Census.

**POPULATION: RELIGION, CENSUS, 30th JUNE, 1961**

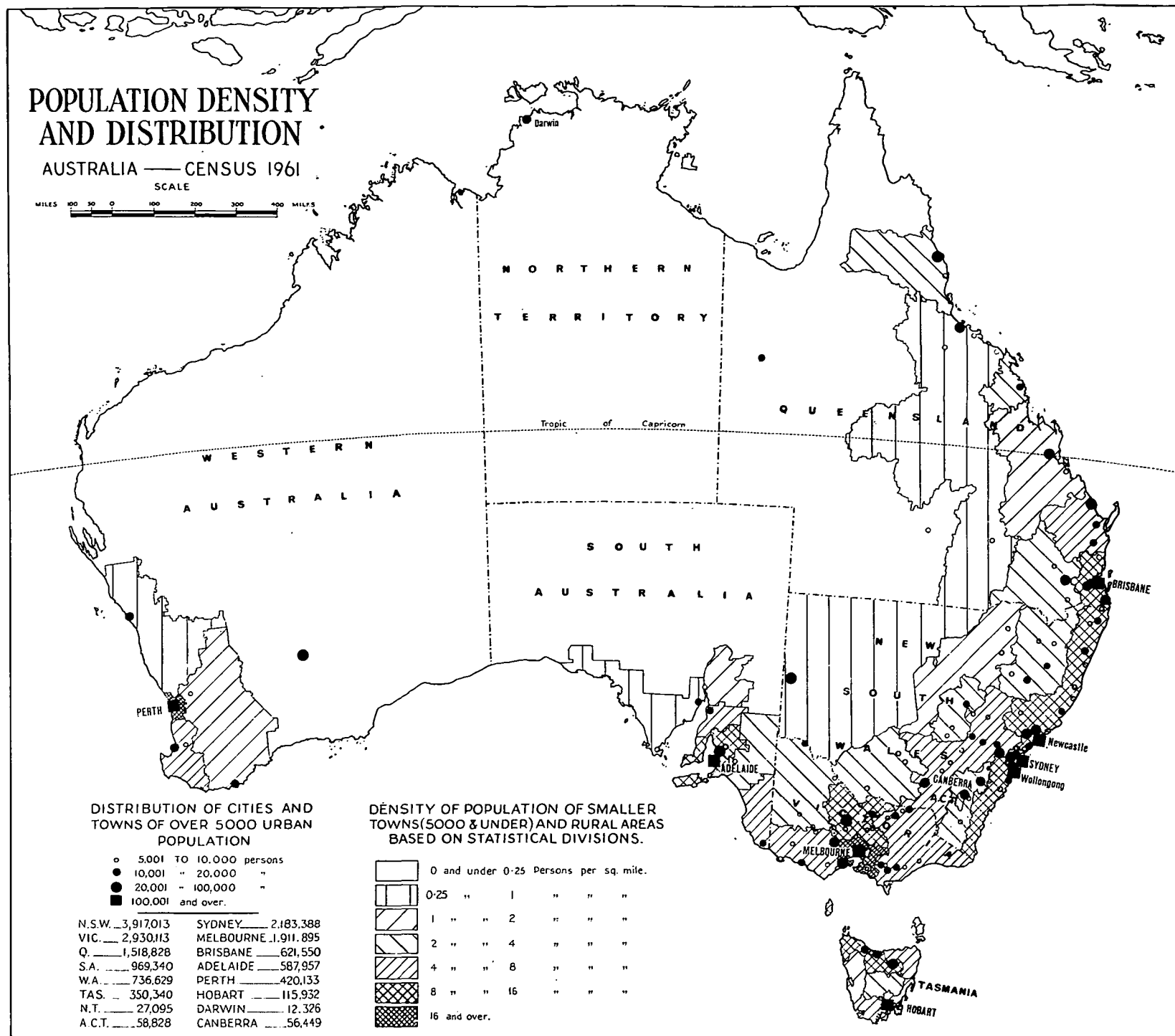
(EXCLUDING FULL-BLOOD ABORIGINALS)

Religion	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
Christian—									
Baptist ..	50,805	38,627	22,253	21,032	8,961	7,227	227	687	149,819
Brethren ..	4,869	3,357	3,799	573	856	2,008	17	44	15,523
Catholic									
Roman(a)	476,127	250,822	209,307	59,629	106,053	26,288	4,316	7,116	1,139,658
Catholic(a)	555,655	511,912	163,043	123,424	74,131	37,705	2,952	11,531	1,480,353
Churches of									
Christ ..	12,889	37,939	7,627	23,905	10,261	2,507	120	393	95,641
Church of									
England ..	1,556,965	893,160	486,316	255,054	289,863	159,101	8,165	20,307	3,668,931
Congregational	21,743	12,104	9,166	17,867	8,026	4,193	157	270	73,526
Greek Orthodox ..	57,852	54,823	11,777	18,644	9,057	1,009	859	903	154,924
Lutheran ..	27,533	35,368	35,123	53,947	4,460	1,555	589	1,606	160,181
Methodist ..	294,280	275,205	165,556	216,770	76,465	42,236	2,504	3,379	1,076,395
Presbyterian	333,635	367,346	173,316	37,911	40,573	16,757	1,597	5,383	976,518
Protestant (un-									
defined) ..	28,815	39,941	10,149	11,474	5,234	1,975	620	343	98,551
Salvation Army	15,642	13,597	8,318	6,411	4,545	2,316	134	121	51,084
Seventh-day									
Adventist ..	12,431	5,720	5,473	2,551	3,790	1,567	17	77	31,626
Other (including									
Christian un-									
defined, ..	30,130	24,890	21,940	9,708	8,756	5,090	489	393	101,396
<b>Total, Christian</b>	<b>3,479,371</b>	<b>2,564,811</b>	<b>1,333,163</b>	<b>858,900</b>	<b>651,031</b>	<b>311,534</b>	<b>22,763</b>	<b>52,553</b>	<b>9,274,126</b>
Non-Christian—									
Hebrew ..	24,026	29,932	1,334	985	2,782	150	23	111	59,343
Other ..	2,888	2,873	1,360	1,002	836	118	206	192	9,475
<b>Total, Non-Christian</b>	<b>26,914</b>	<b>32,805</b>	<b>2,694</b>	<b>1,987</b>	<b>3,618</b>	<b>268</b>	<b>229</b>	<b>303</b>	<b>68,818</b>
Indefinite ..	8,456	6,651	3,084	2,614	2,028	1,766	86	77	24,762
No religion ..	14,248	10,796	4,546	3,234	3,156	773	259	536	37,550
No reply ..	388,024	315,050	175,341	102,605	76,796	35,997	3,758	5,359	1,102,930
<b>Grand Total</b>	<b>3,917,013</b>	<b>2,930,113</b>	<b>1,518,828</b>	<b>969,340</b>	<b>736,629</b>	<b>350,340</b>	<b>27,095</b>	<b>58,828</b>	<b>10,508,186</b>

(a) So described in individual Census Schedules.

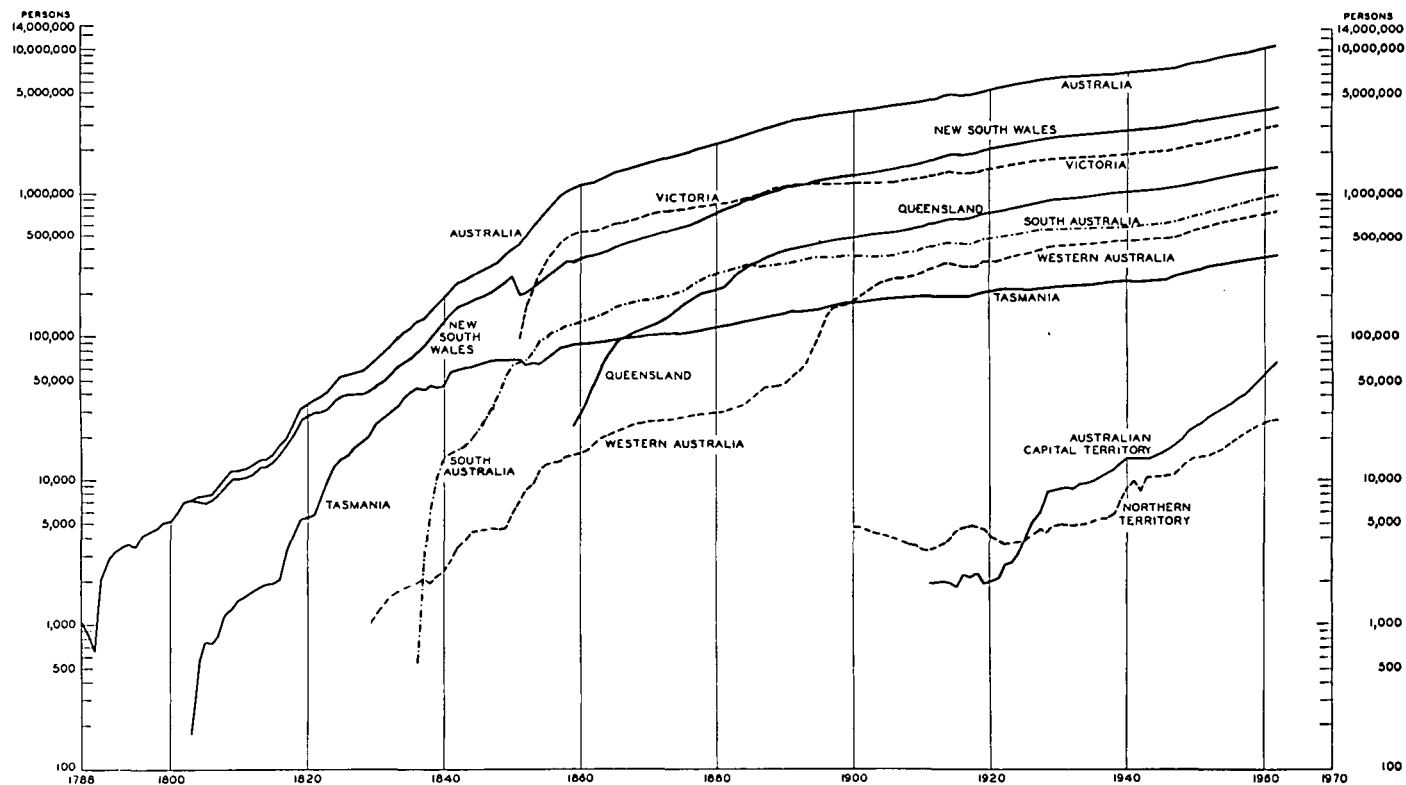
8. *Industry.*—The following table shows the main groups of industry for the male and female population of Australia at 30th June, 1961, compared with 1954. For industry groups Finance and Property, Public Authority (n.e.i.) and Defence Services, and Community and Business Services (including Professional), the figures derived from the 1954 classification have been adjusted to the classification used in 1961.

Persons usually engaged in industry are regarded as being “in the work force”, while the remainder of the population, which at the 1961 Census comprised 6,283,255 persons, is classified as not being in the work force. The term “in the work force” includes persons of all ages who are employees, self-employed or working on their own account, wage and salary earners, unpaid helpers engaged in industry, and those who usually work for a living but have lost their jobs.



# POPULATION OF AUSTRALIA, 1788 TO 1962

RATIO GRAPH

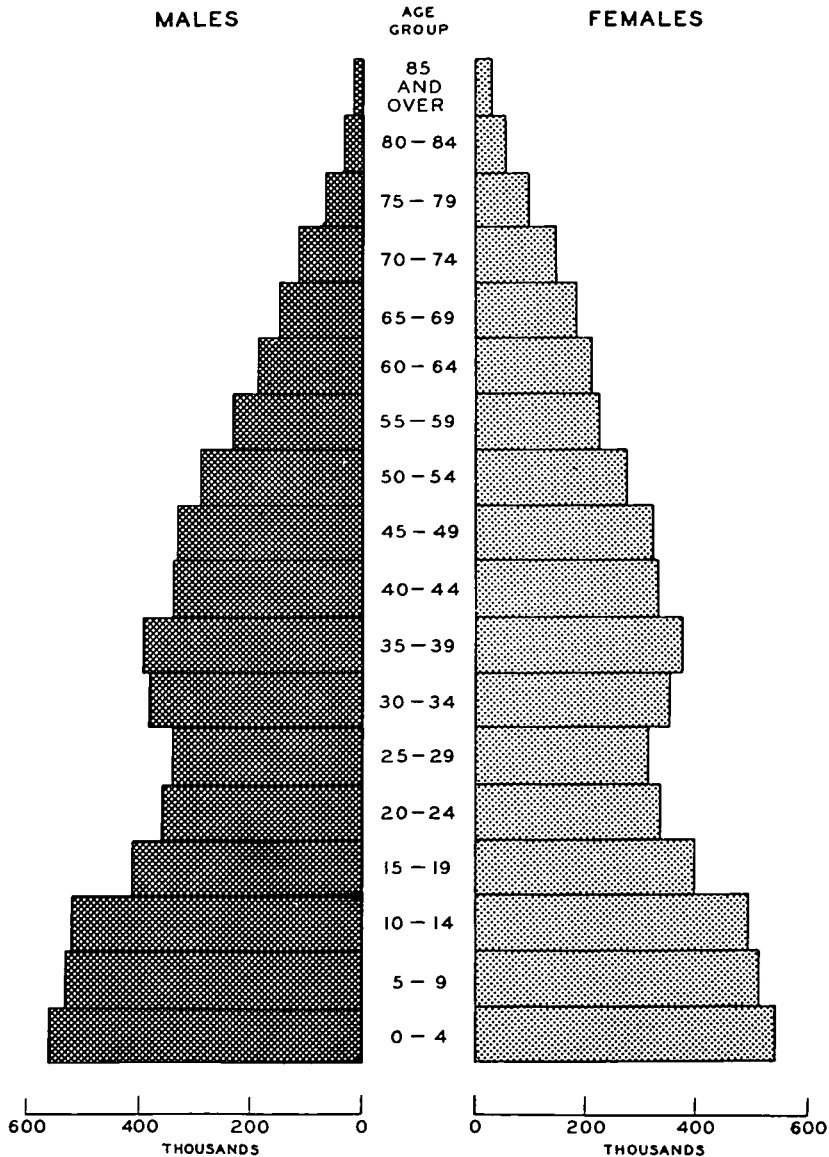


NOTE:- THE VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO THE RATE OF INCREASE OR DECREASE; ACTUAL NUMBERS ARE INDICATED BY THE SCALE

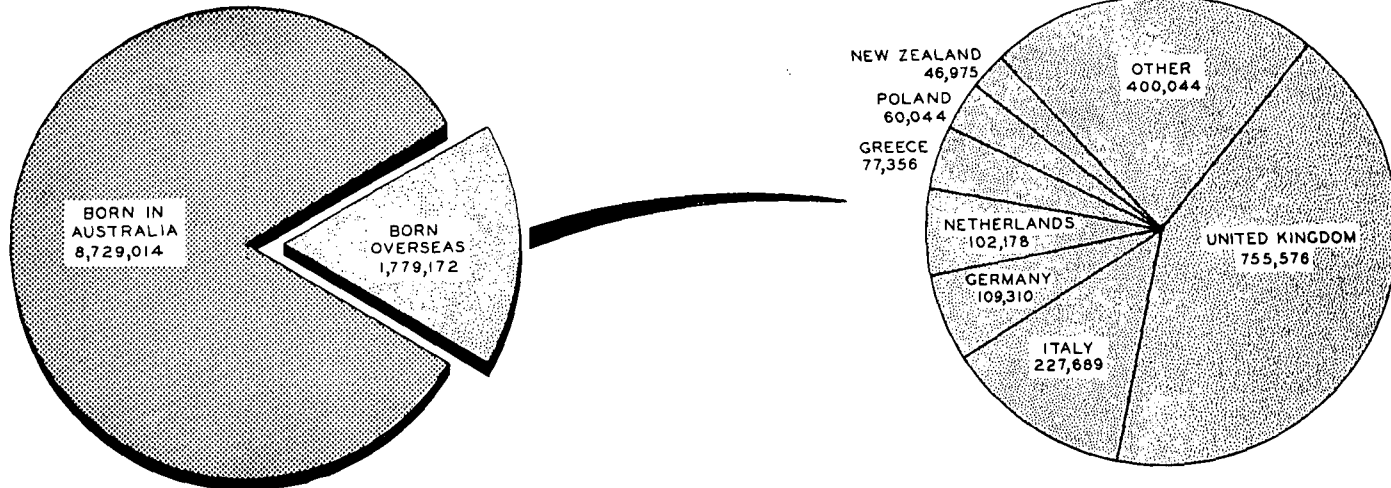
# AUSTRALIA

## AGE DISTRIBUTION OF THE POPULATION

30<sup>TH</sup> JUNE, 1961



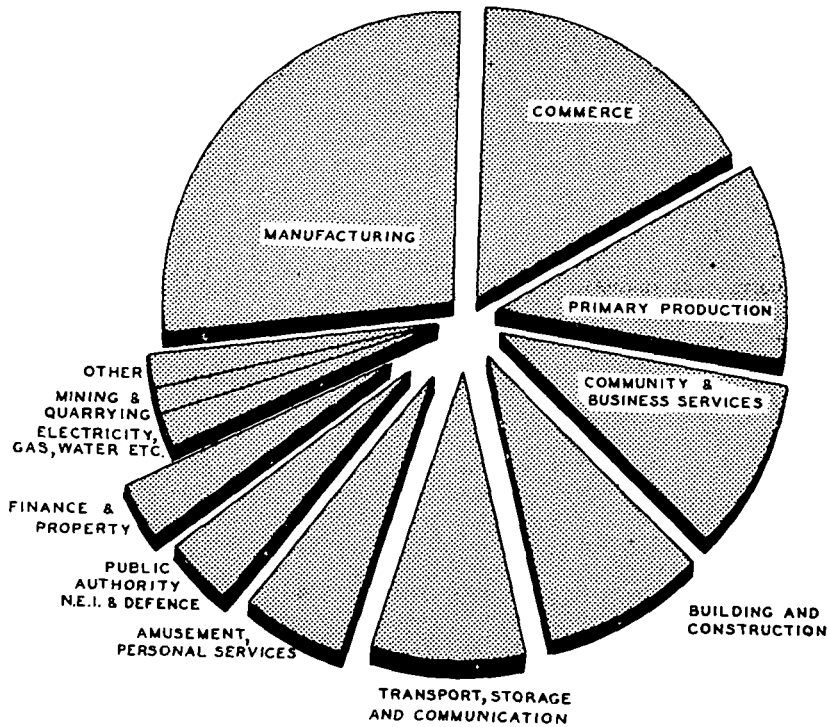
AUSTRALIA  
BIRTHPLACE OF THE POPULATION  
30<sup>TH</sup>. JUNE, 1961



# AUSTRALIA INDUSTRY OF THE POPULATION

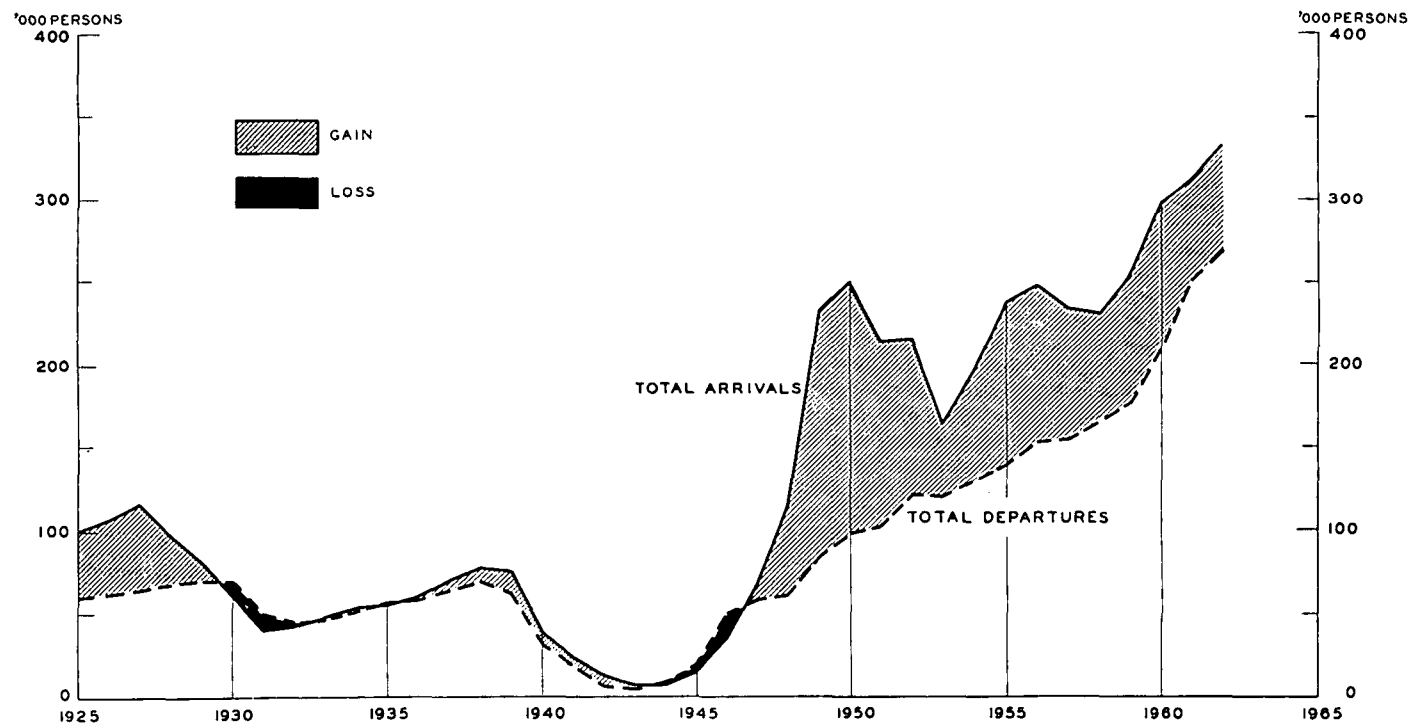
30<sup>TH</sup>. JUNE, 1961

## WORK FORCE



PERSONS IN WORK FORCE 4,224,931

# OVERSEA ARRIVALS AND DEPARTURES AUSTRALIA, 1925 TO 1962



Persons who do not earn their living by doing work for monetary reward, such as children, housewives, full-time students, retired persons, pensioners and inmates of institutions (excluding temporary inmates of hospitals and members of religious orders) are regarded as not being in the work force.

(i) *Censuses, 30th June, 1954 and 1961.* At the 1961 Census, 60 in every 100 of the male population and 20 in every 100 of the female population were in the work force.

Of the males in the work force, those engaged in manufacturing represented the largest proportion, namely 28.0 per cent.; followed next in order by those in Commerce, 14.3 per cent.; Primary Production, 13.3 per cent.; Building and Construction, 11.5 per cent.; and Transport and Storage and Communication, 10.3 per cent.

As with males, females in the work force were engaged mainly in Manufacturing, 23.9 per cent.; followed next in order by those in Commerce, 22.2 per cent.; Community and Business Services, 21.5 per cent.; and Amusement, Hotels and Other Accommodation, Cafés, Personal Service, etc., 12.8 per cent.

# POPULATION: INDUSTRY, AUSTRALIA, 1954 AND 1961

(EXCLUDING FULL-BLOOD ABORIGINALS)

Industry group	Census, 30th June, 1954			Census, 30th June, 1961			Increase, 1954-61
	Males	Females	Persons	Males	Females	Persons	
Primary production ..	461,215	32,083	493,298	419,678	39,189	458,867	- 34,431
Mining and quarrying ..	60,310	1,061	61,371	52,989	1,478	54,467	- 6,904
Manufacturing ..	800,268	227,063	1,027,331	887,106	253,260	1,140,366	113,035
Electricity, gas, water and sanitary services (production, supply and maintenance) ..	69,554	4,096	73,650	88,621	5,652	94,273	20,623
Building and construction ..	321,829	3,793	325,622	365,252	7,290	372,542	46,920
Transport and storage and communication ..	304,388	31,447	335,835	326,128	36,813	362,941	27,106
Finance and property ..	61,488	32,725	94,213	86,282	54,858	141,140	46,927
Commerce ..	387,468	189,913	577,381	451,552	234,972	686,524	109,143
Public authority (n.e.i.) and defence services ..	126,840	29,671	156,511	135,849	33,943	169,792	13,281
Community and business services (including professional) (a) ..	136,512	158,325	294,837	182,239	227,901	410,140	115,303
Amusement, hotels and other accommodation, cafés, personal service, etc. ..	99,003	125,486	224,489	112,512	135,454	247,966	23,477
Other industries and industry inadequately described or not stated ..	27,745	9,739	37,484	57,565	28,348	85,913	48,429
<i>Total in Work Force</i> ..	<i>2,856,620</i>	<i>845,402</i>	<i>3,702,022</i>	<i>3,165,773</i>	<i>1,059,158</i>	<i>4,224,931</i>	<i>522,909</i>
Persons not in work force ..	1,689,498	3,595,010	5,284,508	2,146,479	4,136,776	6,283,255	998,747
<b>Grand Total</b> ..	<b>4,546,118</b>	<b>4,440,412</b>	<b>8,986,530</b>	<b>5,312,252</b>	<b>5,195,934</b>	<b>10,508,186</b>	<b>1,521,656</b>

(a) Includes police, fire brigades, hospitals, medical and dental services, education, and business services such as consultant engineering and surveying, accountancy and auditing, industrial and trade associations, advertising, etc.

NOTE.—Minus sign (—) denotes decrease.



(ii) *States and Territories, Census, 30th June, 1961.* The following table shows particulars of the industry of the population of each State and Territory at the 1961 Census.

**POPULATION: INDUSTRY, CENSUS, 30th JUNE, 1961**

(EXCLUDING FULL-BLOOD ABORIGINALS)

Industry group	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Primary production ..	141,953	109,784	101,655	45,032	41,154	17,166	1,558	565	458,867
Mining and quarrying ..	23,228	4,891	10,529	3,213	7,881	3,633	1,026	66	54,467
Manufacturing ..	462,643	379,691	111,904	103,065	50,975	29,534	885	1,669	1,140,366
Electricity, gas, water and sanitary services (production, supply and maintenance) ..	34,664	32,502	9,734	9,127	4,702	3,164	121	259	94,273
Building and construction ..	137,292	101,665	56,478	32,521	25,416	13,343	1,819	4,008	372,542
Transport and storage and communication ..	139,601	94,447	54,016	32,260	27,092	12,658	1,715	1,152	362,941
Finance and property ..	56,685	41,818	17,555	12,141	8,445	3,724	191	581	141,140
Commerce ..	260,085	190,272	96,384	64,783	50,783	20,547	1,226	2,444	686,524
Public authority (n.e.i.) and defence services	59,704	45,074	23,458	13,624	11,432	5,011	2,802	8,687	169,792
Community and business services (including professional) (a) ..	154,379	115,747	55,506	35,595	30,987	13,020	1,556	3,350	410,140
Amusement, hotels and other accommodation, cafés, personal service, etc. ..	97,128	68,822	35,895	19,421	16,654	7,036	1,093	1,917	247,966
Other industries and industry inadequately described or not stated	35,003	25,298	11,902	6,782	4,279	2,090	251	308	85,913
<i>Total in Work Force</i>	<i>1,602,365</i>	<i>1,210,011</i>	<i>585,016</i>	<i>377,564</i>	<i>279,800</i>	<i>130,926</i>	<i>14,243</i>	<i>25,006</i>	<i>4,224,931</i>
Persons not in work force ..	2,314,648	1,720,102	933,812	591,776	456,829	219,414	12,852	33,822	6,283,255
<b>Grand Total ..</b>	<b>3,917,013</b>	<b>2,930,113</b>	<b>1,518,828</b>	<b>969,340</b>	<b>736,629</b>	<b>350,340</b>	<b>27,095</b>	<b>58,828</b>	<b>10,508,186</b>

(a) Includes police, fire brigades, hospitals, medical and dental services, education, and business services such as consultant engineering and surveying, accountancy and auditing, industrial and trade associations, advertising, etc.

**9. Occupational Status.**—(i) *Censuses, 30th June, 1954 and 1961.* The term "occupational status" relates to the capacity in which persons are engaged in the various branches of industry.

Of those persons in the work force at 30th June, 1961, 79.3 per cent. were employees; 9.8 per cent. were self-employed and 6.3 per cent. were employers, compared with 79.9 per cent.; 11.1 per cent.; and 6.8 per cent. respectively in 1954.

There was a higher percentage of dependent population (i.e. persons not in the work force) to total population in 1961 (59.8 per cent.) than in 1954 (58.8 per cent.). The increase since 1954 in the number of persons not in the work force (18.9 per cent.) was greater than the increase in the work force (14.1 per cent.).

The following table shows the occupational status of the population at the Census of 30th June, 1961, as compared with the 1954 Census.

**POPULATION: OCCUPATIONAL STATUS, AUSTRALIA, 1954 AND 1961**  
(EXCLUDING FULL-BLOOD ABORIGINALS)

Occupational status	Census, 30th June, 1954			Census, 30th June, 1961			Increase, 1954-61
	Males	Females	Persons	Males	Females	Persons	
<b>In work force—</b>							
At work—							
Employer .. ..	220,408	30,028	250,436	224,513	42,746	267,259	16,823
Self-employed .. ..	358,746	51,436	410,182	350,437	62,775	413,212	3,030
Employee(a) .. ..	2,211,915	737,488	2,949,403	2,448,458	901,746	3,350,204	400,801
Helper(b) .. ..	18,342	9,866	28,208	13,801	7,941	21,742	-6,466
Total at Work .. ..	2,809,411	828,818	3,638,229	3,037,209	1,015,208	4,052,417	414,188
Not at work(c) .. ..	40,913	13,953	54,866	128,564	43,950	172,514	117,648
Not stated .. ..	6,296	2,631	8,927	(d)	(d)	(d)	-8,927
Total in Work Force .. ..	2,856,620	845,402	3,702,022	3,165,773	1,059,158	4,224,931	522,909
Not in work force .. ..	1,689,498	3,595,010	5,284,508	2,146,479	4,136,776	6,283,255	998,747
Grand Total .. ..	4,546,118	4,440,412	8,986,530	5,312,252	5,195,934	10,508,186	1,521,656

(a) On wage or salary. (b) Not on wage or salary. (c) The category "Not at work" includes those who stated that they were usually engaged in work, but were not actively seeking a job at the time of the Census by reason of sickness, accident, etc., or because they were on strike, changing jobs, or temporarily laid off, etc. It includes also persons able and willing to work but unable to secure employment, as well as casual and seasonal workers not actually in a job at the time of the Census. The numbers shown as "Not at work", therefore, do not represent the number of unemployed available for work and unable to obtain it. (d) In processing the 1961 Census data, an occupational status was allocated prior to tabulation in all instances where this information was not stated.

NOTE.—Minus sign (—) denotes decrease.

(ii) *States and Territories, Census, 30th June, 1961.* The following table shows particulars of the occupational status of the population of each State and Territory at the 1961 Census.

**POPULATION: OCCUPATIONAL STATUS, CENSUS, 30th JUNE, 1961**  
(EXCLUDING FULL-BLOOD ABORIGINALS)

Occupational status	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
<b>In work force—</b>									
At work—									
Employer ..	95,721	73,151	43,497	24,234	20,531	8,221	897	1,007	267,259
Self-employed ..	138,685	120,999	67,856	41,034	29,827	13,191	723	897	413,212
Employee(a) ..	1,297,823	958,006	438,856	298,597	217,619	104,719	12,144	22,440	3,350,204
Helper(b) ..	6,494	5,965	4,874	1,968	1,660	704	55	22	21,742
Total at Work ..	1,538,723	1,158,121	555,083	365,833	269,637	126,835	13,819	24,366	4,052,417
Not at work(c) ..	63,642	51,890	29,933	11,731	10,163	4,091	424	640	172,514
Total in Work Force ..	1,602,365	1,210,011	585,016	377,564	279,800	130,926	14,243	25,006	4,224,931
Not in work force ..	2,314,648	1,720,102	933,812	591,776	456,829	219,414	12,852	33,822	6,283,255
Grand Total ..	3,917,013	2,930,113	1,518,828	969,340	736,629	350,340	27,095	58,828	10,508,186

(a) On wage or salary. (b) Not on wage or salary. (c) The category "Not at Work" includes those who stated that they were usually engaged in work but were not actively seeking a job at the time of the Census by reason of sickness, accident, etc., or because they were on strike, changing jobs or temporarily laid off, etc. It includes also persons able and willing to work but unable to secure employment, as well as casual and seasonal workers not actually in a job at the time of the Census. The numbers shown as "Not at Work", therefore, do not represent the number of unemployed available for work and unable to obtain it.

10. *Other General Characteristics.*—In addition to the questions asked at the 1961 Census on the foregoing characteristics, a question on race was asked. The information supplied in reply to this question has not yet been tabulated.

For information supplied at the 1961 Census in answer to questions asked on dwellings and householders see Chapter XI. Housing and Building.

NOTE.—The density and distribution, age distribution, birthplaces and industry of the population at the 1961 Census are shown in graphs on pp. 328-31.

### § 8. Oversea Arrivals and Departures

1. Oversea Arrivals and Departures since 1936.—Earlier issues of the Official Year Book contain, in summary form, tables showing the increase of population by net migration from 1861 to the latest date, while information for individual years from 1881 is published in the annual bulletin, *Demography*. The following table shows, for Australia, arrivals and departures since 1936, and refers to total movement irrespective of length of stay. A graph showing arrivals and departures from 1921 to 1962 appears on page 332.

#### OVERSEA ARRIVALS AND DEPARTURES: AUSTRALIA

Period	Total arrivals			Total departures			Excess of arrivals over departures		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
1936-40(a) ..	161,774	159,538	321,312	140,901	137,283	278,184	20,873	22,255	43,128
1941-45(a) ..	35,422	28,503	63,925	30,097	26,019	56,116	5,325	2,484	7,809
1946-50(a) ..	398,507	303,413	701,920	180,779	168,057	348,836	217,728	135,356	353,084
1951-55 ..	581,300	446,566	1,027,866	340,819	273,223	614,042	240,481	173,343	413,824
1956-60 ..	695,445	568,652	1,264,097	481,235	377,840	859,075	214,210	190,812	405,022
1958 ..	121,030	109,234	230,264	91,367	73,531	164,898	29,663	35,703	65,366
1959 ..	139,941	113,955	253,896	98,917	78,188	177,105	41,024	35,767	76,791
1960 ..	169,579	129,582	299,161	116,857	92,169	209,026	52,722	37,413	90,135
1961 ..	170,404	142,686	313,090	141,349	110,218	251,567	29,055	32,468	61,523
1962 ..	180,732	151,592	332,324	152,112	117,690	269,802	28,620	33,902	62,522

(a) Excludes movements of defence personnel from September, 1939, to June, 1947.

2. Excess of Arrivals over Departures.—(i) *General*. The excess of total overseas arrivals over total departures is one of the elements of population increase taken into account in preparing the estimated population for other than census dates (see § 5 of this chapter, pp. 313-4). It is necessary to use statistics of total overseas arrivals and departures for this purpose, because Australian population statistics relate to the total population present in Australia at the date of the census or estimate, and not the population normally resident in Australia (which would include those temporarily overseas and exclude those temporarily visiting Australia). In the following paragraphs are set out particulars of the net gain or loss of population due to overseas migration, according to age and conjugal condition and country of birthplace, during the years 1960 to 1962.

(ii) *Age Distribution and Conjugal Condition*. The net gain to the population of Australia due to total migration movement during the years 1960, 1961 and 1962, according to age and conjugal condition, was as follows.

#### EXCESS OF ARRIVALS OVER DEPARTURES: AGE DISTRIBUTION AND CONJUGAL CONDITION, AUSTRALIA, 1960 TO 1962

Particulars	1960			1961			1962(a)		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons

#### AGE DISTRIBUTION

Years—									
0-4 ..	4,141	3,634	7,775	3,378	3,154	6,532	2,578	2,331	4,909
5-14 ..	8,359	7,134	15,493	6,983	6,441	13,424	5,598	5,007	10,605
15-24 ..	19,628	9,657	29,285	8,975	7,889	16,864	4,967	9,062	14,029
25-44 ..	17,733	13,237	30,970	7,727	11,186	18,913	4,023	10,224	14,247
45-64 ..	2,460	2,936	5,396	1,619	2,881	4,500	1,202	2,419	3,621
65 and over ..	401	815	1,216	373	917	1,290	305	694	999
Total ..	52,722	37,413	90,135	29,055	32,468	61,523	18,673	29,733	48,410

(a) Year ended 30th June.

**EXCESS OF ARRIVALS OVER DEPARTURES: AGE DISTRIBUTION AND CONJUGAL CONDITION, AUSTRALIA, 1960 TO 1962.—continued.**

Particulars	1960			1961			1962(a)		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
<b>CONJUGAL CONDITION</b>									
Never married—									
Under 15 years of age ..	12,500	10,768	23,268	10,361	9,595	19,956	8,166	7,338	15,504
15 years of age and over ..	24,401	9,825	34,226	7,512	8,328	15,840	2,980	10,949	13,929
Married ..	15,593	15,745	31,338	11,176	13,484	24,660	7,594	10,709	18,303
Widowed ..	68	800	868	—63	834	771	—72	595	523
Divorced ..	160	275	435	69	227	296	5	146	151
<b>Total ..</b>	<b>52,722</b>	<b>37,413</b>	<b>90,135</b>	<b>29,055</b>	<b>32,468</b>	<b>61,523</b>	<b>18,673</b>	<b>29,737</b>	<b>48,410</b>

(a) Year ended 30th June.

NOTE.—Minus sign (—) indicates excess of departures over arrivals.

(iii) *Country of Birthplace.* The net gain due to total migration movement during the years 1960, 1961 and 1962, according to country of birthplace was as follows.

**EXCESS OF ARRIVALS OVER DEPARTURES: COUNTRY OF BIRTHPLACE, AUSTRALIA, 1960 TO 1962**

Country of birthplace	1960			1961			1962		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Australia ..	—2,525	—3,283	—5,808	—5,371	—5,105	—10,476	—2,724	—3,239	—5,963
United Kingdom ..	14,273	12,762	27,035	13,503	12,907	26,410	12,215	11,557	23,772
Ireland ..	740	745	1,485	846	768	1,614	958	886	1,844
Malta ..	1,830	1,266	3,096	—224	603	379	570	321	891
New Zealand ..	2,575	1,800	4,375	2,244	2,129	4,373	2,408	2,211	4,619
Other Commonwealth countries ..	16,893	13,290	30,183	10,998	11,302	22,300	13,427	11,736	25,163
<b>Total, Commonwealth Countries ..</b>	<b>1,002</b>	<b>568</b>	<b>1,570</b>	<b>156</b>	<b>198</b>	<b>354</b>	<b>—247</b>	<b>—36</b>	<b>—283</b>
Austria ..	6,492	3,381	9,873	644	941	1,585	—607	202	—405
Germany ..	4,276	3,791	8,067	1,845	4,794	6,639	4,158	7,161	11,319
Greece ..	9,851	6,672	16,523	5,970	6,912	12,882	4,509	7,197	11,706
Italy ..	3,651	3,024	6,675	1,121	963	2,084	—310	—37	—347
Netherlands ..	645	753	1,398	878	925	1,803	390	502	892
Poland ..	770	352	1,122	722	625	1,347	1,983	1,855	3,838
Spain ..	4,245	1,872	6,117	2,444	1,506	3,950	2,204	1,593	3,797
Yugoslavia ..	1,851	1,480	3,331	708	1,116	1,824	—41	569	528
Other European countries ..	569	393	962	961	629	1,590	871	671	1,542
China ..	494	448	942	602	645	1,247	309	347	656
South Africa ..	527	440	967	661	547	1,208	728	660	1,388
United States of America ..	1,196	826	2,022	1,135	1,037	2,172	979	1,157	2,136
Other countries ..	35,569	24,000	59,569	17,847	20,838	38,685	14,926	21,841	36,767
<b>Total, Foreign Countries ..</b>	<b>260</b>	<b>123</b>	<b>383</b>	<b>210</b>	<b>328</b>	<b>538</b>	<b>267</b>	<b>325</b>	<b>592</b>
At sea, and not stated ..	52,722	37,413	90,135	29,055	32,468	61,523	28,620	33,902	62,522
<b>Grand Total ..</b>									

NOTE.—Minus sign (—) indicates excess of departures over arrivals.

3. **Stated Purpose of Travel.**—Since 1st July, 1924, overseas travellers have been classified according to declared intention in regard to residence into two principal categories, distinguishing movements for short terms from movements for longer periods (including permanently). Prior to 1957, these categories were *temporary* and *permanent*. Thereafter they were changed to *short-term* and *permanent and long-term*, but the basis of classification was not changed and the figures are directly comparable for the whole period. For short-term movements, overseas visitors and Australian residents have been identified separately.

Revised questions for travellers were introduced in mid-1958, and these enabled the separation, from 1st January, 1959, of permanent from other long-term movements and also the identification of former settlers departing among the permanent departures.

The principal categories of travellers according to stated purpose of travel are as follows:—

*Permanent movement*—consisting of persons arriving with stated intent to settle permanently in Australia, and Australian residents departing with stated intent to reside permanently abroad;

*Long-term movement*—consisting of the arrival of visitors and the departure of residents with stated intent to stay (in Australia or in a country abroad respectively) for twelve months or more; and departure of visitors and return of residents who have stayed (in Australia or in a country abroad respectively) for twelve months or more;

*Short-term movement*—consisting of all other movements, including the movement of Australian troops irrespective of period of stay (air crew and ships' crew are excluded);

*Settlers*—i.e. persons who, on arrival in Australia, indicated that they came intending to settle, and *Former Settlers*—i.e. persons who, on departure from Australia, stated that they had come to Australia intending to settle, had stayed for a period of twelve months or more and were now departing permanently.\*

\* Included in *Permanent movement* above.

This classification is based on the purpose of travel stated by travellers on arrival in, or departure from, Australia. These statements represent the traveller's intention at that time. Many travellers subsequently change their intentions, and this must be borne in mind in interpreting the statistics.

The numbers so classified since 1st January, 1936, on the basis of declared intention as to residence, and since 1st January, 1959, on this basis supplemented by additional particulars as to stated purpose of travel, are as follows.

#### OVERSEA ARRIVALS AND DEPARTURES CLASSIFIED ACCORDING TO STATED PURPOSE OF TRAVEL: AUSTRALIA

(Persons)

##### ARRIVALS

Period	Permanent and long-term movement				Short-term movement				Total arrivals
	Permanent	Long-term		Total permanent and long-term arrivals	Residents returning	Overseas visitors arriving			
		Settlers arriving	Residents returning			Overseas visitors arriving	In transit	Other	
1936-40	n.a.	n.a.	n.a.	88,712	104,870	n.a.	n.a.	127,730	321,312
1941-45	n.a.	n.a.	n.a.	32,624	11,150	n.a.	n.a.	20,151	63,925
1946-50	n.a.	n.a.	n.a.	457,988	108,736	n.a.	n.a.	135,196	701,920
1951-55	n.a.	n.a.	n.a.	570,090	216,949	77,825	163,002	240,827	1,027,866
1956-60	n.a.	n.a.	n.a.	615,767	309,611	84,206	254,513	338,719	1,264,097
1958 ..	n.a.	n.a.	n.a.	109,857	59,065	16,615	44,727	61,342	230,264
1959 ..	97,777	15,285	10,960	124,022	61,754	17,006	51,114	68,120	253,896
1960 ..	110,079	16,495	12,797	139,371	75,167	20,919	63,704	84,623	299,161
1961 ..	95,407	18,602	13,577	127,586	86,208	24,945	74,351	99,296	313,090
1962 ..	90,464	20,580	13,941	124,985	95,915	25,477	85,947	111,424	332,324

OVERSEAS ARRIVALS AND DEPARTURES CLASSIFIED ACCORDING TO  
STATED PURPOSE OF TRAVEL: AUSTRALIA—*continued*

(Persons)

## DEPARTURES

Period	Permanent and long-term movement					Short-term movement			
	Permanent			Long-term		Total permanent and long-term departures	Residents departing	Overseas visitors departing	Total departures
	Former settlers departing	Other residents departing	Total permanent	Residents departing	Overseas visitors departing				
1936-40	n.a.	n.a.	n.a.	n.a.	n.a.	51,006	94,650	132,528	278,184
1941-45	n.a.	n.a.	n.a.	n.a.	n.a.	22,399	9,163	24,554	56,116
1946-50	n.a.	n.a.	n.a.	n.a.	n.a.	105,968	101,787	141,081	348,836
1951-55	n.a.	n.a.	n.a.	n.a.	n.a.	155,509	212,978	245,555	614,042
1956-60	n.a.	n.a.	n.a.	n.a.	n.a.	210,807	306,118	342,150	859,075
1958 ..	n.a.	n.a.	n.a.	n.a.	n.a.	44,978	58,888	61,032	164,898
1959 ..	6,034	6,866	12,900	21,296	6,248	40,444	64,631	72,030	177,105
1960 ..	5,551	5,302	10,853	25,331	10,411	46,595	77,761	84,670	209,026
1961 ..	8,240	6,537	14,777	32,157	12,213	59,147	89,880	102,540	251,567
1962 ..	8,518	6,911	15,429	31,781	13,137	60,347	95,872	113,583	269,802

4. Permanent Movement.—(i) *General*. In the following paragraphs, particulars are given of the persons who on arrival in Australia stated that they came intending to settle, and of Australian residents who on departure from Australia stated their intent to reside permanently abroad.

(ii) *Country of Birthplace*. The principal countries of birthplace of permanent arrivals (assisted arrivals and others) and departures during the years 1961 and 1962 were as follows.

OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT:  
COUNTRY OF BIRTH-PLACE, AUSTRALIA, 1961 AND 1962

(Persons)

Country of birthplace	1961				1962			
	Arrivals			Departures	Arrivals			Departures
	Assisted (a)	Others	Total		Assisted (a)	Others	Total	
Australia ..	477	298	775	4,699	470	241	711	4,801
United Kingdom and Ireland ..	32,644	4,427	37,071	5,654	28,539	4,347	32,886	5,403
India, Pakistan and Ceylon ..	191	730	921	91	186	796	982	85
Malta ..	1,041	865	1,906	76	1,291	810	2,101	70
New Zealand ..	39	1,037	1,076	518	52	1,072	1,124	613
Other Commonwealth countries ..	401	2,037	2,438	239	511	2,026	2,537	311
<i>Total, Commonwealth Countries</i> ..	<i>34,793</i>	<i>9,394</i>	<i>44,187</i>	<i>11,277</i>	<i>31,049</i>	<i>9,292</i>	<i>40,341</i>	<i>11,283</i>
Austria ..	902	179	1,081	157	310	129	439	230
Belgium ..	371	88	459	19	602	45	647	21
Germany ..	3,849	798	4,647	720	2,227	697	2,924	945
Greece ..	2,493	5,085	8,578	77	2,194	9,766	11,960	99
Italy ..	2,414	14,054	16,468	334	606	14,988	15,594	325
Netherlands ..	3,985	691	4,676	786	1,649	540	2,189	859
Poland ..	483	1,616	2,099	120	135	1,121	1,256	136
Spain ..	1,144	251	1,395	10	3,699	270	3,969	27
Yugoslavia ..	2,308	1,992	4,300	85	1,202	3,065	4,267	148
Other European countries ..	1,386	1,946	3,332	741	578	1,389	1,967	741
South Africa ..	762	569	1,331	34	362	370	732	60
United States of America ..	477	463	940	158	381	1,037	1,418	257
Other countries ..	277	2,468	2,745	233	193	2,730	2,923	257
<i>Total, Foreign Countries</i> ..	<i>20,851</i>	<i>30,200</i>	<i>51,051</i>	<i>3,474</i>	<i>14,138</i>	<i>35,766</i>	<i>49,904</i>	<i>4,105</i>
At sea, and not stated ..	41	128	169	26	89	130	219	41
<b>Grand Total</b> ..	<b>55,685</b>	<b>39,722</b>	<b>95,407</b>	<b>14,777</b>	<b>45,276</b>	<b>45,188</b>	<b>90,464</b>	<b>15,429</b>

(a) For details of assisted passage schemes, see § 9, pp. 342-7.

(iii) *Nationality.* The principal nationalities of permanent arrivals (assisted arrivals and others) and departures during the years 1961 and 1962 were as follows.

**OVERSEA ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT:  
NATIONALITY, AUSTRALIA, 1961 AND 1962**  
(Persons)

Nationality	1961				1962			
	Arrivals			Departures	Arrivals			Departures
	Assisted (a)	Others	Total		Assisted (a)	Others	Total	
<b>British—</b>								
Country of Citizenship—								
Australia .. ..	423	800	1,223	3,977	475	777	1,252	4,170
Canada .. ..	22	742	764	80	35	562	597	65
Ireland(b) .. ..	531	153	684	187	483	97	580	148
India, Pakistan and Ceylon .. ..	1	534	535	40	2	560	562	52
New Zealand .. ..	24	1,107	1,131	388	17	1,121	1,138	514
South Africa(b) ..	647	530	1,177	27	243	300	543	49
United Kingdom and colonies(c) .. ..	32,961	4,836	37,797	2,420	28,194	4,600	32,794	2,826
Other countries ..	33	315	348	47	48	787	835	79
Citizenship not stated	1,287	1,432	2,719	4,403	2,408	1,336	3,744	3,632
<i>Total, British</i> ..	<i>35,929</i>	<i>10,449</i>	<i>46,378</i>	<i>11,569</i>	<i>31,905</i>	<i>10,140</i>	<i>42,045</i>	<i>11,535</i>
American (U.S.) ..	518	510	1,028	216	395	687	1,082	331
Austrian .. ..	897	155	1,052	164	321	107	428	235
Belgian .. ..	397	73	470	16	607	38	645	11
Dutch .. ..	4,170	799	4,969	884	1,728	620	2,348	983
German .. ..	4,368	766	5,134	709	2,180	679	2,859	957
Greek .. ..	2,489	5,277	7,766	53	2,187	10,210	12,397	86
Italian .. ..	2,368	14,138	16,506	278	556	15,104	15,660	287
Lebanese .. ..		535	535	5		459	459	20
Polish(d) .. ..	7	1,418	1,425	58	20	1,032	1,052	74
Russian(e) .. ..	1	1,177	1,178	39	1	859	860	39
Spanish .. ..	1,138	262	1,400	5	3,708	260	3,968	28
Yugoslav .. ..	1,098	1,644	2,742	44	726	2,836	3,562	83
Stateless(f) .. ..	1,214	987	2,201	52	466	888	1,354	62
Other .. ..	1,091	1,532	2,623	685	476	1,269	1,745	698
<b>Grand Total</b> ..	<b>55,685</b>	<b>39,722</b>	<b>95,407</b>	<b>14,777</b>	<b>45,276</b>	<b>45,188</b>	<b>90,464</b>	<b>15,429</b>

(a) For details of assisted passage schemes see § 9, pp. 342-7. (b) Included with "British" nationality for the purpose of this table. (c) Includes Maltese. See (ii) above for particulars of persons born in Malta. (d) Includes "Stateless" who were formerly Polish. (e) Includes "Stateless" who were formerly Russian. (f) Stateless, former nationality not stated, or other than Polish or Russian.

(iv) *Occupation.* The main occupation groupings of permanent arrivals and departures during the years 1961 and 1962 were as follows.

**OVERSEA ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT:  
AUSTRALIA, 1961 AND 1962**

Occupation group(a)	1961				1962			
	Arrivals		Departures		Arrivals		Departures	
	Males	Females	Males	Females	Males	Females	Males	Females
Professional, technical and related workers ..	2,508	1,590	663	527	2,412	1,532	774	536
Administrative, executive and managerial workers ..	1,076	123	304	23	1,100	112	306	24
Clerical workers ..	1,481	2,524	439	678	1,291	2,208	411	660
Sales workers ..	1,043	578	287	121	943	530	265	131
Farmers, fishermen, hunters, timbergetters and related workers ..	2,912	87	202	3	3,070	76	189	5
Miners, quarrymen and related workers ..	527	..	57	..	286	..	58	..
Workers in transport and communication ..	1,831	198	291	33	1,633	158	295	29
Craftsmen and production process workers ..	13,545	1,590	2,120	202	10,207	2,171	2,139	227
Labourers ..	6,103	..	612	..	5,756	..	593	..
Service (protective and other), sport and recrea- tion workers ..	1,110	6,942	285	209	1,044	8,703	306	232
Occupation inadequately described or not stated	1,498	539	112	37	1,694	494	129	29
Persons not in work force—								
Children and students ..	15,269	13,704	2,300	2,145	14,085	12,768	2,495	2,347
Others .. ..	475	18,154	197	2,930	720	17,471	191	3,058
<b>Total</b> .. ..	<b>49,378</b>	<b>46,029</b>	<b>7,869</b>	<b>6,908</b>	<b>44,241</b>	<b>46,223</b>	<b>8,151</b>	<b>7,278</b>

(a) The classification of occupations used in compiling these figures is that used for the 1961 Census and is not directly comparable with that in use prior to 1961.

(v) *Age and Conjugal Condition.* The age distribution and conjugal condition of permanent arrivals and departures during the year 1962 were as follows.

**OVERSEA ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT:  
AGE DISTRIBUTION AND CONJUGAL CONDITION, AUSTRALIA, 1962**

Age (years)	Arrivals				Departures			
	Single	Married	Widowed and divorced	Total	Single	Married	Widowed and divorced	Total
<b>MALES</b>								
0-4.. ..	4,984	..	..	4,984	1,035	..	..	1,035
5-14.. ..	7,870	..	..	7,870	1,242	..	..	1,242
15-24.. ..	9,396	1,186	6	10,588	1,268	181	1	1,450
25-44.. ..	5,232	10,755	152	16,139	1,185	2,103	43	3,331
45-64.. ..	214	3,514	155	3,883	135	702	49	886
65 and over ..	34	537	206	777	28	110	69	207
<b>Total .. ..</b>	<b>27,730</b>	<b>15,992</b>	<b>519</b>	<b>44,241</b>	<b>4,893</b>	<b>3,096</b>	<b>162</b>	<b>8,151</b>

<b>FEMALES</b>								
0-4.. ..	4,484	..	..	4,484	971	..	..	971
5-14.. ..	7,541	..	..	7,541	1,244	..	..	1,244
15-24.. ..	9,637	3,508	22	13,167	698	569	4	1,271
25-44.. ..	4,089	10,835	315	15,239	393	2,134	89	2,616
45-64.. ..	297	3,151	1,092	4,540	95	557	193	845
65 and over ..	57	412	783	1,252	27	78	226	331
<b>Total .. ..</b>	<b>26,105</b>	<b>17,906</b>	<b>2,212</b>	<b>46,223</b>	<b>3,428</b>	<b>3,338</b>	<b>512</b>	<b>7,278</b>

<b>PERSONS</b>								
0-4.. ..	9,468	..	..	9,468	2,006	..	..	2,006
5-14.. ..	15,411	..	..	15,411	2,486	..	..	2,486
15-24.. ..	19,033	4,694	28	23,755	1,966	750	5	2,721
25-44.. ..	9,321	21,590	467	31,378	1,578	4,237	132	5,947
45-64.. ..	511	6,665	1,247	8,423	230	1,259	242	1,731
65 and over ..	91	949	989	2,029	55	188	295	538
<b>Total .. ..</b>	<b>53,835</b>	<b>33,898</b>	<b>2,731</b>	<b>90,464</b>	<b>8,321</b>	<b>6,434</b>	<b>674</b>	<b>15,429</b>

(vi) *Country of Intended Future Residence.* The principal countries of intended future residence (i.e. for a period of twelve months or more) of persons departing permanently during the years 1961 and 1962 were as follows. Separate figures are given for "former settlers" departing permanently (see definition on page 338) and other residents departing permanently.



**OVERSEA ARRIVALS AND DEPARTURES—PERMANENT DEPARTURES:  
COUNTRY OF INTENDED FUTURE RESIDENCE(a), AUSTRALIA, 1961 AND 1962  
(Persons)**

Country of intended future residence(a)	1961			1962		
	Former settlers departing	Other residents departing	Total	Former settlers departing	Other residents departing	Total
United Kingdom and Ireland ..	3,349	1,897	5,246	3,393	1,900	5,293
Canada .. .. .	295	209	504	170	265	435
New Zealand .. .. .	1,649	1,830	3,479	1,553	1,610	3,163
Papua and New Guinea ..	113	933	1,046	123	935	1,058
Other Commonwealth countries	213	266	479	256	379	635
<i>Total, Commonwealth Countries</i>	<i>5,619</i>	<i>5,135</i>	<i>10,754</i>	<i>5,495</i>	<i>5,089</i>	<i>10,584</i>
Germany .. .. .	502	202	704	651	268	919
Italy .. .. .	214	111	325	198	200	398
Netherlands .. .. .	664	252	916	662	299	961
Other European countries ..	599	246	845	651	338	989
United States of America ..	446	462	908	616	570	1,186
Other countries .. .. .	196	129	325	245	147	392
<i>Total, Foreign Countries</i> ..	<i>2,621</i>	<i>1,402</i>	<i>4,023</i>	<i>3,023</i>	<i>1,822</i>	<i>4,845</i>
<b>Grand Total</b> .. .. .	<b>8,240</b>	<b>6,537</b>	<b>14,777</b>	<b>8,518</b>	<b>6,911</b>	<b>15,429</b>

(a) For a period of twelve months or more.

5. **Other Oversea Movement Statistics.**—More detailed statistics of oversea arrivals and departures, covering country of residence, country of embarkation/intended disembarkation, mode of travel, month of arrival or departure, short-term movements, etc., are shown in the tables of Section II. "Oversea Arrivals and Departures" of the annual bulletin, *Demography*.

### § 9. Assisted Migration into Australia

1. **General.**—In the following table particulars are shown of the total numbers of persons who were assisted to come to Australia by the Australian Government under all assisted passage schemes during the period 1936 to 1962.

#### "ASSISTED" MIGRATION: AUSTRALIA

Period							Nominated and selected (assisted) arrivals
1936-40	..	..	..	..	..	..	3,828
1941-45	..	..	..	..	..	..	..
1946-50	..	..	..	..	..	..	273,195
1951-55	..	..	..	..	..	..	275,241
1956-60	..	..	..	..	..	..	305,517
1958 ..	..	..	..	..	..	..	55,799
1959 ..	..	..	..	..	..	..	64,146
1960 ..	..	..	..	..	..	..	68,254
1961 ..	..	..	..	..	..	..	55,685
1962 ..	..	..	..	..	..	..	45,276

2. *Joint Commonwealth and States Scheme.*—Details of the joint scheme of assisted immigration arrived at by agreement between the Commonwealth and State Governments, which operated from 1920 to 1939, were published in earlier issues of the Official Year Book (see No. 38, p. 576). After the outbreak of hostilities in 1939, it was decided to discontinue the grant of assisted passages for the duration of the war.

3. *Migration from Britain.*—(i) *General.* Resumption of migration was the subject of negotiations between the Commonwealth and British Governments towards the end of 1945, and two agreements were signed in March, 1946. These agreements, which came into operation on 31st March, 1947, provided for free and assisted passages to be granted to British residents desirous of settling in Australia. The Free Passage Agreement, which applied to British ex-servicemen and their dependants, was terminated on 28th February, 1955. From 1st April, 1949, the Assisted Passage Agreement continued in operation under renewal from time to time and was again renewed as from 1st April, 1962.

(ii) *Assisted Passages.* Under the existing financial arrangements, the British Government's contribution towards the Assisted Passage Scheme is agreed upon when the agreement is extended, and for the five years from 1st April, 1962, was fixed at a maximum amount of £150,000 sterling a year.

The Assisted Passage Agreement covers five main groups of migrants (and their families), namely, personal nominees, group nominees, Commonwealth nominees, "Bring out a Briton" campaign families, and unnominated migrants. *Personal nominees* are migrants sponsored by residents of Australia able to provide suitable accommodation for them (any adult resident of Australia may nominate friends or relatives in Britain who are eligible to be considered for assisted passages under this agreement). *Group nominees* are recruited on a trade-qualification basis to meet applications lodged by employers and State Governments, who undertake to provide employment and accommodation for those selected. *Commonwealth nominees* comprise workers selected against known and assessed employment demands in Australia. Migrants in this group can live in hostels established by the Commonwealth Government for up to two years while they are seeking to obtain private accommodation. The Commonwealth nominee scheme was introduced in 1950 in order to reinforce the personal and group nomination schemes. "Bring out a Briton" campaign families are selected to fill employment and accommodation vacancies located by special voluntary committees formed by community effort to stimulate the flow of British migrants who are otherwise unable to obtain sponsorship. *Unnominated migrants* may also be granted assisted passages, even though they are unable to arrange personal nominations and are not occupationally qualified for approval under other existing assisted passage selection schemes. Unnominated families must possess a minimum of £500 sterling for transfer to Australia. Unnominated single persons must possess £25 sterling, and married couples without children £50 sterling. The unnominated categories must be prepared to make their own accommodation arrangements after arrival.

Although the Commonwealth is not generally prepared to accept single persons or married persons without children if they have reached their forty-sixth birthday before the date of sailing, the parents or close relatives of intending migrants or of persons established in Australia may, if otherwise acceptable under the scheme, be granted passages irrespective of age. Each migrant of 19 years of age and over is required to contribute £10 sterling towards the cost of his or her passage, while persons under 19 years travel free. Apart from this contribution and that made annually by the British Government, the cost of the passages is borne by the Commonwealth Government.

(iii) *Number of Arrivals.* The numbers of British migrants who came to Australia under the Free and Assisted Passage Agreement during the years January, 1947, to June, 1962, are given in the following table, according to the State of proposed destination.

**UNITED KINGDOM FREE AND ASSISTED PASSAGE AGREEMENT: NUMBER OF MIGRANTS(a)**

Period	N.S.W.	Vic.	Qld	S. Aust.	W. Aust.	Tas.	A.C.T.	C'wealth nominees (b)	Total
1957-58 ..	6,069	6,402	4,040	3,446	2,406	976	233	6,397	29,969
1958-59 ..	4,375	4,931	2,449	2,912	1,853	706	210	11,070	28,506
1959-60 ..	6,341	6,324	2,862	3,988	1,442	873	277	11,790	33,897
1960-61 ..	6,313	6,186	2,579	3,308	1,613	637	234	13,830	34,700
1961-62 ..	5,804	4,433	2,595	3,317	2,094	509	157	8,161	27,070
<b>Total, January, 1947 to June, 1962 ..</b>	<b>88,483</b>	<b>98,369</b>	<b>45,929</b>	<b>36,070</b>	<b>35,389</b>	<b>12,483</b>	<b>4,067</b>	<b>107,148</b>	<b>427,938</b>

(a) Includes child migrants as shown in para. 4 (iii) below.

(b) See text, p. 343, for explanation.

**4. Child Migration from Britain.**—(i) *General.* Since the commencement of the assisted passage schemes in 1947, the migration of unaccompanied children and youths from Britain has been encouraged under the auspices of approved voluntary organizations. The organizations at present introducing child migrants include the Fairbridge Farm Schools, Dr. Barnardo's Homes, the Big Brother Movements of New South Wales and Tasmania, and the Northcote Children's Emigration Fund. All the principal religious denominations are also participating in the scheme. There are 34 approved homes in Australia for the care of child migrants. There is also a growing interest in the Family Schemes operated by the Fairbridge Society and the Northcote Children's Farm School. Children of school age may be accepted under the Fairbridge Scheme by schools at Molong (New South Wales) and at Pinjarra (Western Australia) and, by arrangement with the Northcote Trust, at the Northcote Farm School near Bacchus Marsh (Victoria). Children with only one parent living may be accommodated at the St. John's Home for Boys and Girls at Canterbury (Victoria) conducted by the Church of England, and at Draper's Hall, Adelaide. Maintenance payments for these children vary within each State.

(ii) *Financial Assistance.* The British Government contributes £A. 15s. a week for each child, and in addition, the respective State Governments contribute amounts varying from 7s. a week in New South Wales to 16s. in Western Australia. The Commonwealth Government pays the normal child endowment of 10s. a week. In addition, the Commonwealth Government and the State Government concerned have contributed towards the capital expenditure on accommodation for child migrants.

(iii) *Number of Arrivals.* From the beginning of 1947 to 30th June, 1962, a total of 6,301 British children and youths arrived under the sponsorship of voluntary organizations. New South Wales took 3,961, Western Australia 1,345, Victoria 554, and the other three States 441. These children were brought to Australia under the United Kingdom Free and Assisted Passage Scheme and are included in the figures shown in the table above.

**5. Maltese Migration.**—On 31st May, 1948, the Commonwealth Government and the Government of Malta entered into an agreement under which both Governments grant financial assistance towards the passage costs of selected Maltese migrants. The Commonwealth contribution is £30 sterling per adult, with proportionate amounts for children, and the Government of Malta contributes an amount at least equal to this sum. This agreement has been extended from time to time. On 13th August, 1957, a new agreement, which was acknowledged to have come into effect as from 1st July, 1956, was signed between the two governments. This agreement has been extended by exchange of letters and is currently operative till 30th June, 1963.

From its inception until 30th June, 1962, a total of 27,443 Maltese had arrived under this scheme. Up to the end of June, 1962, 248 Maltese children had been brought out to approved institutions in Australia. These are included in the number shown above.

6. **Netherlands Migration.**—A migration agreement outlining the terms and conditions under which Netherlands nationals may be selected in the Netherlands and assisted with their passage costs to enable them to settle in Australia was concluded between the Commonwealth and Netherlands Governments in February, 1951, and came into operation on 1st April of that year. The agreement was extended for a period of 5 years as from 1st April, 1956, and subsequently until 1st April, 1963. This superseded an earlier arrangement in 1946, between the Commonwealth and the Netherlands Emigration Foundation (*see* Official Year Book No. 39, p. 567).

The migrant is required to contribute towards his passage costs in accordance with a formula devised by the Netherlands Government. The balance is met by the Commonwealth and Netherlands Governments and the Intergovernmental Committee for European Migration. The Commonwealth Government's contribution is now equivalent to \$118 a head.

The provision of shipping is the responsibility of the Netherlands Government. The Commonwealth arranges for the reception of migrants and their after-care and assists in the securing of employment. Families who have not obtained private accommodation prior to arrival may be temporarily accommodated in an Immigration Centre. When the breadwinner is placed in employment, he proceeds either to employer-found accommodation or to a Commonwealth Hostel. These arrangements continue until the family can secure its own accommodation, or vacancies enable a family to be united in a hostel.

Up to the end of June, 1962, 64,297 Dutch migrants had settled here under the Netherlands-Australia Migration Agreement.

7. **Italian Migration.**—On 29th March, 1951, the Commonwealth and Italian Governments entered into a migration agreement effective for a period of 5 years, under which certain selected Italian migrants were assisted to Australia. The agreement came into force on 1st August, 1951.

The agreement was temporarily suspended at the end of 1952, but in March, 1954, provision was made for assisted passages to be granted to certain relatives and fiancées of migrants who had previously settled in Australia under the agreement. On 1st December, 1954, the agreement proper was re-opened and was extended to 31st July, 1959. It has since been further extended to 31st January, 1963. At present, the Commonwealth contributes the equivalent of \$100 towards the fare of each migrant. The balance of passage costs is contributed by the migrants themselves, the Italian Government, and the Intergovernmental Committee for European Migration. Up to 30th June, 1962, arrivals under this agreement totalled 45,193 persons.

8. **German Migration.**—On 29th August, 1952, a migration agreement was signed between the Commonwealth Government and the Government of the Federal Republic of Germany. This was somewhat similar to the agreements concluded with the Netherlands and Italy and was effective for a period of 5 years. The agreement was renewed on 27th August, 1958, to be effective from 29th August, 1957. The Commonwealth Government's contribution towards passage costs is the equivalent of \$100 a head. The migrants may be required to pay a small contribution, and the balance of passage costs is paid by the Intergovernmental Committee for European Migration. The ICEM payment is derived in part from a lump sum contribution which the Government of the Federal Republic of Germany makes annually to the Committee. Arrivals of German assisted migrants numbered 67,847 to the end of June, 1962.

9. **Austrian Migration.**—Late in 1952, arrangements were made with the Intergovernmental Committee for European Migration for the migration to Australia of a small number of selected rural and other workers and their families from Austria. Later, these arrangements were extended to cover greater numbers and wider categories of migrants. The Commonwealth contributes an amount equivalent to \$100 a head towards the passage costs of Austrian migrants. The Austrian Government, the Intergovernmental Committee for European Migration and the migrants themselves also contribute towards passage costs. Reception arrangements, temporary accommodation, after-care and placement in employment are undertaken by the Commonwealth. Under these arrangements, 16,750 Austrians arrived in Australia up to 30th June, 1962.

**10. Greek Migration.**—An arrangement similar to the Austrian one was made with the Intergovernmental Committee for European Migration late in 1952. The Commonwealth's contribution and the arrangements for reception, accommodation, employment and after-care are the same as for Austrian migrants. Under this arrangement, 31,557 Greek assisted migrants had settled in Australia up to 30th June, 1962.

**11. Refugee Migration.**—On 21st July, 1947, the Commonwealth Government entered into an agreement with the International Refugee Organization to settle displaced persons in Australia. Although the International Refugee Organization concluded its activities in 1951, the Commonwealth agreed to receive those displaced persons already accepted for migration, but whose passages had still to be arranged. A total of 170,700 persons settled in Australia under this scheme. Following the cessation of the Displaced Persons Scheme in 1951, Australia has accepted for permanent resettlement under assisted passage arrangements 30,796 refugees of European origin to 30th June, 1962. Included in this figure are 14,060 Hungarians who have been granted asylum in Australia since the uprising in October, 1956. The Commonwealth Government granted a total of £A. 130,000 for the relief of Hungarian refugees and, in addition, contributed the equivalent of \$100 a head to the passage costs of those refugees who were granted assisted passages.

Australia continues to accept refugees under assisted passage and full-fare arrangements. In recent years, a special assisted passage quota has been established with application mainly in Italy and Austria. In the post-war period to 30th June, 1962, 201,496 refugees arrived as assisted passage and 65,701 as full-fare migrants.

**12. General Assisted Passage Scheme.**—To encourage the migration of persons from the United States of America, Switzerland, Denmark, Norway, Sweden and Finland, the Commonwealth Government on 10th September, 1954, introduced an assisted passage scheme for nationals of these countries. Later, the scheme was extended to cover certain British subjects living in a number of countries other than the United Kingdom and to nationals of Eire, Belgium and France. (As from 1st February, 1961, new arrangements have operated for Belgium. See para. 14 following.) Up to 31st December, 1958, the Commonwealth made a contribution of £37 10s. sterling per adult and *pro rata* amounts for children according to the fare paid, but this was increased to £57 2s. 10d. sterling (\$160) per adult and *pro rata* for children in respect of migrants approved on and after 1st January, 1959. To the end of June, 1962, 18,314 migrants had arrived in Australia under this scheme.

**13. Spanish Migration.**—Negotiations were completed in 1958 with the Spanish Government and the Intergovernmental Committee for European Migration under which selected rural workers suitable for sugar-cane cutting were offered assisted passages to Australia. Later this arrangement was extended to include other occupational groups.

The Commonwealth contributes £A. 44 12s. 9d. (\$100) towards the passage costs of each approved migrant, while the Spanish Government, the migrant, and the Intergovernmental Committee for European Migration contribute the balance.

Reception arrangements, temporary accommodation and initial placement in employment are the responsibility of the Commonwealth. Under these arrangements 3,554 Spanish nationals arrived in Australia up to 30th June, 1962.

**14. Belgian Migration.**—On 1st February, the General Assisted Passage Scheme, which had covered Belgian nationals, ceased to operate in Belgium, and arrangements similar to those operating in Greece and Austria were introduced, following negotiations with the Belgian Government and with the Intergovernmental Committee for European Migration.

The Commonwealth contribution and the arrangements for reception, accommodation, employment and after-care are the same as for Austrian migrants. Under these arrangements, 738 Belgian assisted migrants arrived in Australia up to 30th June, 1962.

**15. Other Assisted Migration Schemes.**—The Displaced Persons Scheme, the Empire and Allied Ex-Servicemen's Scheme, the Triestian Scheme and the Eire Assisted Passage Scheme have now lapsed. Details of these schemes were published in earlier issues of the Official Year Book (see No. 47, p. 320).

16. *Summary of Arrivals of Assisted Migrants.*—The following table shows the number of assisted migrants who arrived in Australia in each of the last five financial years and since January, 1947.

## ARRIVALS UNDER ASSISTED MIGRATION SCHEMES

Assisted migration scheme	1957-58	1958-59	1959-60	1960-61	1961-62	January, 1947 to June, 1962
Austrian .. .. .	1,007	1,289	1,841	1,494	227	16,750
Belgian .. .. .	..	..	..	232	506	738
General Assisted Passage(a) ..	1,511	3,275	4,176	3,527	2,234	18,314
German .. .. .	4,218	6,541	9,514	10,151	2,234	67,847
Greek .. .. .	1,907	2,099	2,191	2,086	2,761	31,557
Italian .. .. .	2,781	3,014	3,006	3,013	1,255	45,193
Maltese .. .. .	729	1,005	1,028	1,099	931	27,443
Netherlands .. .. .	5,402	7,222	8,842	5,728	2,349	64,297
Refugee .. .. .	6,759	4,118	3,969	3,413	946	201,496
Spanish .. .. .	..	328	447	1,230	1,549	3,554
United Kingdom .. .. .	29,969	28,506	33,897	34,700	27,070	427,938
Other schemes .. .. .	376	623	406	323	..	28,098
<b>Total .. .. .</b>	<b>54,659</b>	<b>58,020</b>	<b>69,317</b>	<b>66,996</b>	<b>42,062</b>	<b>933,225</b>

(a) Mostly Scandinavians, U.S. Americans and British nationals from countries other than the United Kingdom.

NOTE.—(i) All arrivals indicated in this table have obtained some financial assistance from the Australian Government towards payment of their passage money. Transport to Australia for the migrants concerned has been arranged on (1) ships under charter to the Department of Immigration, (2) ships and aircraft under charter to the Intergovernmental Committee for European Migration and (3) normal commercial shipping and airlines.

(ii) The arrivals under these schemes include a small number of nationals of countries other than those referred to, and stateless persons.

## § 10. The Regulation of Immigration into Australia

1. *Powers and Legislation of the Commonwealth.*—(i) *Constitutional.* Under section 51 (xxvii.) and (xxviii.) of the Commonwealth Constitution, the Parliament of the Commonwealth is empowered to make laws with respect to immigration, emigration, aliens and the influx of criminals.

(ii) *Legislation.* Immigration into the Commonwealth is regulated by the *Migration Act 1958* which came into force on 1st June, 1959, and repealed the *Immigration Act 1901-1949* and *Aliens Deportation Act 1948*.

Any immigrant entering Australia after the commencement of the Act without having been granted an "entry permit" and without being within an exempted class, is a prohibited immigrant. Exempted persons include diplomatic, consular and trade representatives of other countries and seamen whose ships are in Australian ports. "Immigrant" includes persons entering for temporary stay.

Entry permits are normally granted at ports of entry by means of stamps in travellers' passports or equivalent documents, without any form of application having to be completed. Temporary entry permits are granted to persons who have been authorized to enter for a limited period only. Persons eligible to enter for permanent residence are granted permits of unrestricted validity. Persons who are refused entry permits must be kept on board the ship on which they arrive; otherwise, the shipping company is liable to a fine of £500.

The Act abolishes the " Dictation Test " as a means of excluding or deporting ineligible persons. Other deportation powers which were contained in the repealed legislation were largely re-enacted, though with some revision.

The Act also revises the law relating to the emigration of aborigines and children, repealing the *Emigration Act* 1910.

The new Act does *not* affect passport or visa requirements for entry to Australia. All persons who, prior to the 1958 Act, had been required before embarkation to obtain visas, or other kinds of provisional authority to proceed to Australia, still have to obtain them. Likewise, persons who did *not* have to produce authority to enter Australia, before being given passages to Australia, do *not* have to obtain them solely as a result of the new Act. Persons previously allowed to enter Australia without production of passports—notably British people arriving from New Zealand—are still able to do so.

The *Immigration (Guardianship of Children) Act* 1946–1952 provides that the Minister for Immigration becomes the legal guardian of every person under the age of 21 years who enters Australia other than in the charge of, or for the purpose of living in the care of, a parent or adult relative. It is administered primarily through the child welfare authorities in each State who, as the Minister's delegates under the Act, supervise the welfare of each " immigrant child ".

The *Aliens Act* 1947–1959 provides that a register of aliens shall be maintained for every State and mainland Territory of the Commonwealth. Unless exempted, aliens 16 years of age and over are required to register with the Department of Immigration and to notify the Department of any change of address, occupation or employment and of their marriage. The Act also provides that consent must be obtained before an alien may change his surname.

**2. Conditions of Immigration into Australia.**—(i) *Persons of Non-European Race.* In pursuance of established policy, the general practice is not to permit persons of non-European descent to enter Australia for the purpose of settling permanently, but exceptions are made in favour of the spouses and minor unmarried children of Australian citizens and other British subjects permanently resident in Australia. Special provision exists for the temporary admission of non-Europeans who are highly qualified or of special distinction or who are bona fide merchants, students, tourists or of numerous other categories. They are permitted to enter and remain in Australia under temporary entry permits while they retain their status. Such persons must obtain prior authority to enter Australia.

(ii) *Persons of European Race.* Maltese, Cypriots and aliens of European race desiring to settle permanently in Australia are required to obtain authority for admission from the Department of Immigration or an Australian oversea post. Their admission under the present policy is subject to their compliance with the Commonwealth's requirements in regard to health, character, freedom from security risk and general suitability as settlers.

(iii) *General Information.* General information as to conditions of entry into Australia may be obtained from the following officers:—

- (a) In Australia—the Secretary, Department of Immigration, Canberra, Australian Capital Territory, and Commonwealth Migration Officers in the capital cities of the various States;
- (b) In Great Britain—the Chief Migration Officer, High Commissioner's Office, Australia House, Strand, London;
- (c) In other British Commonwealth countries—the High Commissioner for Australia;
- (d) In Holland, Italy, Germany, Greece, Austria, Sweden, Switzerland and Hong Kong—the Chief Migration Officer or Migration Officer in the capital city of each of those countries;
- (e) In other countries where Australia is represented—the Secretary, Australian Embassy, Legation or Consulate.

### § 11. Passports

Australian passports are issued, under the *Passports Act 1938-1948* and *Passport Regulations*, to Australian citizens.

Diplomatic passports are issued to persons travelling on official missions of a diplomatic character. Official passports are granted to persons travelling on the official business of the Commonwealth or a State Government.

Australian passports are obtainable on application at offices of the Commonwealth Department of Immigration in each State of Australia or from oversea offices of that Department, from any Australian diplomatic or consular mission abroad, or from the office of any Australian Government Trade Commissioner overseas.

Applicants for passports must furnish evidence of their identity and nationality and pay a fee of £1.

Approximately 50,000 Australian passports are issued each year in Australia and abroad.

### § 12. Citizenship and Naturalization

1. *Commonwealth Legislation.*—The *Nationality and Citizenship Act 1948* commenced on Australia Day (26th January), 1949, and repealed all previous Commonwealth legislation on this subject. The most significant effect of the Act was the creation for the first time of the status of "Australian Citizen". In this respect, the Act was complementary to citizenship legislation passed or about to be passed by other countries of the British Commonwealth. All Australian citizens, and the citizens of other countries of the British Commonwealth, are declared to be British subjects. For details of the Act, see *Official Year Book No. 42*, page 619.

2. *Certificates Granted.*—The following tables show the number of certificates granted during 1961 and the number of persons affected by these certificates. The certificate covers the person being naturalized and his/her children under the *Nationality and Citizenship Act 1948-1958*.

#### NATURALIZATION: CERTIFICATES GRANTED, AUSTRALIA, 1961

##### PREVIOUS NATIONALITIES OF RECIPIENTS

Nationality	No. of certificates granted	Persons affected by certificates	Nationality	No. of certificates granted	Persons affected by certificates	Nationality	No. of certificates granted	Persons affected by certificates
Afghan ..	1	1	Egyptian ..	23	31	Norwegian ..	85	92
Albanian ..	48	56	Estonian ..	259	278	Polish ..	2,917	3,572
American (U.S.) ..	51	55	Filipino ..	5	5	Portuguese ..	46	57
Argentinian ..	1	1	Finnish ..	53	56	Romanian ..	106	124
Australian Protected Persons	132	196	French ..	168	189	Russian ..	494	543
Austrian ..	651	828	German ..	3,256	4,194	Spanish ..	77	86
Belgian ..	33	37	Greek ..	4,395	5,244	Swedish ..	34	38
Bolivian ..	5	5	Hungarian ..	695	749	Swiss ..	112	117
Brazilian ..	6	6	Indonesian ..	13	17	Syrian ..	9	9
British Protected Persons	6	6	Iranian ..	4	7	Thailander ..	2	4
Bulgarian ..	60	64	Iraqi ..	4	4	Turkish ..	24	25
Burmese ..	1	1	Israeli ..	474	648	Ukrainian ..	1,007	1,257
Byelorussian ..	37	39	Italian ..	9,361	11,489	Uruguayan ..	1	1
Chinese ..	522	609	Japanese ..	95	97	Venezuelan ..	3	3
Cuban ..	1	1	Jordanian ..	4	4	Yugoslav ..	1,707	1,969
Czechoslovak ..	405	451	Latvian ..	839	915	Stateless ..	348	381
Danish ..	117	134	Lebanese ..	307	371			
Dutch ..	4,704	6,341	Lithuanian ..	449	486			
			Luxembourgais ..	1	1			
			Mexican ..	1	1			
						Total ..	34,159	41,895



**COUNTRIES IN WHICH RECIPIENTS(a) ORDINARILY RESIDED IMMEDIATELY BEFORE ENTERING  
AUSTRALIA OR EXTERNAL TERRITORIES**

Country	Certificates granted	Country	Certificates granted	Country	Certificates granted	Country	Certificates granted
Afghanistan ..	1	Estonia ..	4	Lebanon ..	306	South Africa ..	12
Albania ..	19	Finland ..	46	Libya ..	3	Spain ..	64
Argentina ..	10	France ..	330	Lithuania ..	4	Sweden ..	62
Austria ..	1,384	Germany ..	8,728	Malaya ..	4	Switzerland ..	168
Belgium ..	127	Greece ..	3,796	Malta ..	3	Syria ..	10
Bolivia ..	3	Holland ..	4,497	New Caledonia ..	19	Tanganyika ..	4
Borneo, British ..	1	Hong Kong ..	113	New Guinea ..	185	Tangiers ..	3
Brazil ..	24	Hungary ..	243	New Zealand ..	47	Tonga ..	1
Bulgaria ..	7	Iceland ..	1	Norway ..	85	Turkey ..	41
Burma ..	2	India ..	12	Pakistan ..	5	Uganda ..	9
Cambodia ..	1	Indonesia ..	210	Palestine ..	1	Ukraine ..	14
Canada ..	16	Iran ..	8	Peru ..	7	United Kingdom ..	315
Ceylon ..	3	Ireland ..	1	Philippines ..	31	U.S.A. ..	86
Chile ..	6	Israel ..	490	Poland ..	161	Venezuela ..	4
China ..	746	Italy ..	9,821	Portugal ..	33	Vietnam ..	14
Cyprus ..	15	Japan ..	106	Romania ..	19	Yugoslavia ..	647
Czechoslovakia ..	45	Korea ..	1	Russia ..	11		
Denmark ..	141	Kuwait ..	1	Rhodesia ..	1		
Egypt ..	778	Mexico ..	2	Singapore ..	22		
Eritrea ..	1	Latvia ..	6	Solomons ..	12	Total ..	34,159

(a) Excludes children affected by grant of certificates.

The number of persons affected by certificates granted in 1960 in respect of residents of the various States and Territories was as follows:—New South Wales, 14,679; Victoria, 13,428; Queensland, 4,482; South Australia, 3,846; Western Australia, 3,648; Tasmania, 796; Northern Territory, 207; Australian Capital Territory, 432; External Territories, 377; Total, 41,895.

### § 13. Population of External Territories

Ordinances of the individual external territories under the control of Australia provide for a Census of the population to be taken on the day prescribed for the taking of a Census in the Commonwealth of Australia.

The following table shows the population of the Territories of Christmas Island, Cocos (Keeling) Islands, Norfolk Island, Papua, the Trust Territory of New Guinea and the Trust Territory of Nauru at the Census of 30th June, 1961, and as estimated at 30th June, 1962.

#### POPULATION: EXTERNAL TERRITORIES

Territory	Census, 30th June, 1961			Estimate 30th June, 1962
	Males	Females	Persons	Persons
Christmas Island .. ..	1,963	1,136	3,099	3,200
Cocos (Keeling) Islands .. ..	333	273	606	615
Norfolk Island .. ..	421	423	844	876
Papua .. ..	(a) 5,490	(a) 4,304	(a) 9,794	(a) 10,697
Trust Territory of New Guinea .. ..	(a) 9,158	(a) 6,378	(a) 15,536	(a) 15,847
Trust Territory of Nauru .. ..	3,019	1,594	4,613	4,849

(a) Not available.

(b) Non-indigenous population only.

Particulars concerning the indigenous populations of the territories and further details of the 1961 Census results will be found in Chapter V. The Territories of Australia.

### § 14. The Aboriginal Population of Australia

In Official Year Book No. 17, pages 951-61, a brief account was given of the Australian aboriginal population, its origin, its numbers as estimated from time to time and the steps taken for its protection. On pages 914-6 of Official Year Book No. 22, particulars were shown for each of the States and Territories of Australia at successive periods, while a special article dealing with the estimated number and distribution of the native population at the date of first settlement of the white race in the continent appeared on pages 687-96 of Official Year Book No. 23.

The aborigines are scattered over the whole of the mainland, but are mostly in the Northern Territory, Queensland, and Western Australia. Particulars of the number in each State and Territory at the Census of 30th June, 1961, are shown in the following table. Full-blood aborigines in employment or living in proximity to settlements were enumerated at the census, while estimates of the total numbers, including those living in the nomadic state, were furnished by the authorities responsible for native welfare. Half-caste aborigines are included in the numbers of the population and are of course enumerated at the census. The figures shown for Queensland are exclusive of Torres Strait Islanders.

**FULL-BLOOD ABORIGINAL POPULATION, 30th JUNE, 1961**

State or Territory	Number of full-blood Aborigines enumerated at Census, 30th June, 1961			Estimated number of full-blood Aborigines out of contact at Census	Total number of full-blood Aborigines as recorded or estimated as at 30th June, 1961
	Males	Females	Persons		
New South Wales .. ..	791	697	1,488	..	1,488
Victoria .. ..	141	112	253	..	253
Queensland .. ..	4,686	4,000	8,686	..	8,686
South Australia .. ..	1,181	966	2,147	..	2,147
Western Australia .. ..	4,243	3,878	8,121	2,000	10,121
Tasmania .. ..	..	..	..	..	..
Northern Territory .. ..	7,857	7,585	15,442	1,944	17,386
Australian Capital Territory .. ..	..	..	..	..	..
<b>Australia .. ..</b>	<b>18,899</b>	<b>17,238</b>	<b>36,137</b>	<b>3,944</b>	<b>40,081</b>

Torres Strait Islanders, whether full-blood or half-caste, and half-caste aborigines or persons of less than half aboriginal blood are included in the populations shown on pp. 304-35. Census tabulations which show separately the number of full-blood and half-caste Torres Strait Islanders and half-caste aborigines so included have not yet been completed.

For further information as to the estimated numbers of full-blood aborigines, and the difficulty of arriving at precise figures, see Official Year Book No. 47, page 329.

### § 15. International Statistics of Population

1. Introduction.—In the following tables, the population, density, rate of growth, natural increase and masculinity are shown in respect of all countries which had an estimated population of at least one million persons in 1960, together with Cyprus, Papua and Western New Guinea. The source of these figures is the 1961 *Demographic Yearbook* which is prepared and published by the Statistical Office of the United Nations. The tables include figures varying in reliability and accuracy, there being considerable variation in the quality of demographic statistics as between countries, but this information has been shown to provide some form of guide as to the magnitude and trend of population movements in overseas countries.

Where the information available to the Statistical Office of the United Nations relates to only part of the population of a country, the population characteristic (e.g. rate of growth), or vital statistic rate (e.g. marriages), has been omitted from the tables, and this is indicated by a footnote.

For fuller particulars of the differences in the quality of the statistics and their reliability and for other qualifications, reference should be made to the detailed explanations contained in the *Demographic Yearbook* of the Statistical Office of the United Nations (see particularly Technical Notes on Statistical Tables and footnotes to the tables).

2. **Population, Rate of Growth and Density: World, Continents and Regions.**—The following table shows for the World, Continents, and Regions, estimated population and density at ten yearly intervals since 1920, and for 1960. The annual rate of increase (per cent.), together with the average annual increase during the period 1950–60, is also shown. It should be noted that the population figures have been adjusted for underenumeration and errors in estimation. In preparing these figures, the Population Branch of the United Nations revises, from time to time, the estimates for previous years as new data become available, for example, from a census. The figures are estimates only, and as such are subject to a substantial margin of error.

### POPULATION, DENSITY AND RATE OF INCREASE FOR THE WORLD AND CONTINENTS—SELECTED YEARS

(Source: United Nations *Demographic Yearbook*, 1961)

Continent and region	Population							Density (persons per square mile)
	Adjusted estimates of mid-year population (millions)					Annual rate of increase 1950-60 (per cent.)	Average annual increase 1950-60 (millions)	
	1920	1930	1940	1950	1960			
World Total .. ..	1,811	2,015	2,249	2,510	2,995	1.8	48.5	57
<i>Africa</i> .. ..	141	157	176	206	254	2.2	4.8	22
Northern Africa ..	47	53	61	71	88	2.2	1.7	22
Tropical and Southern Africa .. ..	94	104	115	135	166	2.1	3.1	22
<i>America</i> .. ..	208	244	277	329	405	2.1	7.6	25
Northern America ..	117	135	146	167	199	1.8	3.2	24
Middle America ..	30	34	41	51	66	2.7	1.5	62
South America ..	61	75	90	111	140	2.3	2.9	20
<i>Asia</i> .. ..	966	1,072	1,212	1,386	1,679	1.9	29.3	161
South West Asia ..	43	47	53	60	77	2.6	1.7	36
South Central Asia ..	326	362	410	472	559	1.7	8.7	283
South East Asia ..	110	128	155	175	214	2.0	3.9	123
East Asia .. ..	487	535	594	679	829	2.0	15.0	183
<i>Europe</i> .. ..	329	356	381	395	427	0.8	3.2	223
Northern and Western Europe .. ..	115	122	128	133	142	0.7	0.9	163
Central Europe ..	112	120	127	128	139	0.8	1.1	355
Southern Europe ..	102	114	126	134	146	0.9	1.2	225
<i>Oceania</i> .. ..	8.8	10.4	11.3	13.0	16.5	2.4	0.4	5
<i>Union of Soviet Socialist   Republics</i> .. ..	158	176	192	181	214	1.7	3.3	25

3. **Population, Density, Rate of Growth, Natural Increase and Masculinity of Principal Countries.**—Certain details of the population of the larger countries within continental groups are shown in the following table. As explained above, reference should be made to the detailed comments contained in the United Nations *Demographic Yearbook*, 1961, regarding geographical units used, boundaries of areas, reliability of estimates, etc.

POPULATION, DENSITY, RATE OF INCREASE, NATURAL INCREASE  
AND MASCULINITY—SELECTED COUNTRIES(Source: United Nations *Demographic Yearbook*, 1961)

Country	Population mid-year 1960 (thous- ands)	Density 1960 (persons per square mile)	Annual rate of increase 1953-60 (per cent.)	Natural increase		Masculinity at latest census	
				Year	Rate (per thousand popula- tion)	Year	Rate (no. of males per 100 females)
<b>Africa—</b>							
Nigeria .. .. .	35,091	98	1.9	..	(a)	1953	95.6
United Arab Republic—							
Egypt .. .. .	25,929	67	2.4	..	(a)	..	(a)
Ethiopia .. .. .	20,000	44	(a)	..	(a)	..	(a)
South Africa .. .. .	15,780	33	2.4	..	(a)	1951	103.1
Congo (Leopoldville) .. .. .	14,150	16	2.2	1955-57	23.0	1957	94.4
Sudan .. .. .	11,770	12	(a)	1955	33.2	1956	102.2
Morocco .. .. .	11,626	68	3.0	..	(a)	1952	98.4
Algeria .. .. .	11,020	12	2.3	..	(a)	1954	101.6
Tanganyika .. .. .	9,239	26	1.8	1947	19.0	1957	92.9
Rhodesia and Nyasaland .. .. .	8,320	17	2.6	..	(a)	..	(a)
Kenya .. .. .	7,131	32	2.3	..	(a)	1948	98.3
Ghana .. .. .	6,691	73	6.2	1960	30.2	1948	102.4
Uganda .. .. .	6,677	71	2.5	1959	22.0	1959	100.9
Mozambique .. .. .	6,482	21	1.4	..	(a)	1950	91.7
Madagascar .. .. .	5,393	24	2.6	..	(a)	..	(a)
Ruanda-Urundi .. .. .	4,901	234	2.4	1957	34.1	..	(a)
Angola .. .. .	4,642	10	1.2	..	(a)	1960	104.3
Upper Volta .. .. .	(b) 4,400	40	4.4	1960-61	18.5	..	(a)
Tunisia .. .. .	4,168	86	1.5	1959	18.9	1956	98.6
Mali .. .. .	4,100	9	(c) 2.1	1960	26.0	..	(a)
Cameroun .. .. .	4,097	22	0.8	..	(a)	..	(a)
Ivory Coast .. .. .	3,230	26	4.4	1961	22.8	..	(a)
Guinea .. .. .	3,000	32	4.3	1954	22.0	1955	90.8
Senegal .. .. .	2,973	39	5.1	1960	22.0	1960	96.8
Niger .. .. .	2,870	6	4.1	1959-60	27.0	..	(a)
Chad .. .. .	2,639	5	(c) 1.7	..	(a)	..	(a)
Sierra Leone .. .. .	2,450	88	(c) 2.6	..	(a)	..	(a)
Somali .. .. .	(d) 1,990	8	(e) 0.7	..	(a)	..	(a)
Dahomey .. .. .	1,934	43	2.8	1961	28.0	..	(a)
Togo .. .. .	1,440	66	4.8	1960	21.0	..	(a)
Liberia .. .. .	1,290	30	(a)	..	(a)	..	(a)
Central African Republic .. .. .	1,227	5	1.7	1959	22.0	..	(a)
Libya .. .. .	1,195	2	(f) 1.6	..	(a)	1954	107.6
<b>North America—</b>							
United States of America .. .. .	180,670	50	1.7	1961	14.1	1960	97.1
Mexico .. .. .	34,988	46	3.1	1960	33.6	1960	99.5
Canada .. .. .	17,814	5	2.6	1961	18.3	1956	102.8
Cuba .. .. .	6,797	154	2.1	1953	21.1	1953	105.0
Guatemala .. .. .	3,765	90	3.0	1960	32.0	1950	102.2
Haiti .. .. .	3,505	327	1.2	..	(a)	1950	94.5
West Indies .. .. .	3,125	390	1.6	1960	32.3	..	(a)
Dominican Republic .. .. .	2,994	159	3.5	..	(a)	1960	102.0
El Salvador .. .. .	2,501	303	(g) 2.5	1961	38.2	1950	98.0
Puerto Rico .. .. .	2,361	687	1.1	1961	24.3	1960	98.0
Honduras .. .. .	(h) 1,883	44	(g) 2.5	..	(a)	1961	99.2
Nicaragua .. .. .	1,477	26	3.4	..	(a)	1950	97.0
Costa Rica .. .. .	1,171	60	4.1	1961	47.5	1950	99.7
<b>South America—</b>							
Brazil .. .. .	70,799	22	3.4	1950	22.4	1950	99.3
Argentina .. .. .	20,006	19	1.2	1960	14.2	1960	100.6
Colombia .. .. .	14,132	32	2.2	..	(a)	1951	90.9
Peru .. .. .	10,857	22	2.7	..	(a)	1961	99.1
Venezuela .. .. .	(h) 7,524	21	(g) 4.3	1958	35.3	1961	102.7
Chile .. .. .	7,340	26	1.8	1960	23.5	1960	96.2
Ecuador .. .. .	4,317	41	3.2	..	(a)	1950	99.2
Bolivia .. .. .	3,462	8	1.4	..	(a)	1950	96.2
Uruguay .. .. .	2,827	39	1.6	1956	4.4	1908	103.6
Paraguay .. .. .	1,768	11	2.4	..	(a)	1950	95.5
<b>Asia—</b>							
China (mainland) .. .. .	(i) 646,530	175	(j) 2.3	1957	23.0	1953	107.6
India .. .. .	432,567	369	1.9	1958	19.9	1961	106.3
Japan .. .. .	93,200	653	1.0	1961	9.4	1960	96.5
Pakistan .. .. .	92,727	254	1.9	..	(a)	1961	111.0
Indonesia .. .. .	92,600	161	2.2	1954	20.0	..	(a)

NOTE.—See next page for footnotes.

**POPULATION, DENSITY, RATE OF INCREASE, NATURAL INCREASE  
AND MASCULINITY—SELECTED COUNTRIES—continued**

Country	Population mid-year 1960 (thous- ands)	Density 1960 (persons per square mile)	Annual rate of increase 1953-60 (per cent.)	Natural increase		Masculinity at latest census	
				Year	Rate (per thousand popula- tion)	Year	Rate (no. of males per 100 females)
Asia—continued							
Philippines .. ..	27,792	240	3.2	..	(a)	1958	98.9
Thailand .. ..	26,258	132	4.3	1956	22.0	1960	99.5
Turkey (in Asia) ..	25,290	87	(a)	..	(a)	..	(a)
Korea, Republic of ..	24,665	649	2.0	..	(a)	1960	100.7
Burma .. ..	20,662	79	1.0	1955	15.0	..	(a)
Iran .. ..	20,182	32	2.1	1959	20.0	1956	103.6
Viet-Nam, North ..	15,917	266	-0.2	..	(a)	1960	93.4
Viet-Nam, Republic of ..	14,100	214	5.4	..	(a)	..	(a)
Afghanistan .. ..	13,800	55	(a)	..	(a)	..	(a)
China (Taiwan) ..	10,612	764	3.6	1961	31.6	1956	103.8
Ceylon .. ..	9,896	391	2.7	..	(a)	1953	111.5
Nepal .. ..	(h) 9,407	173	(g) 1.6	1954	15.0	1961	97.3
Korea, North .. ..	8,250	175	(a)	..	(a)	..	(a)
Iraq .. ..	7,085	41	2.9	..	(a)	1957	100.7
Malaya, Federation of ..	6,909	136	3.0	1958	32.2	1957	106.5
Saudi Arabia .. ..	(k) 6,036	10	(a)	..	(a)	..	(a)
Yemen .. ..	5,000	66	(a)	..	(a)	..	(a)
Cambodia .. ..	4,952	74	(a)	1959	21.7	1959	99.8
Syria .. ..	4,555	64	3.5	..	(a)	..	(a)
Hong Kong .. ..	2,981	7,490	4.1	1961	28.4	1961	105.8
Israel (Jewish population)	2,114	265	3.6	1961	16.3	1948	106.9
Laos .. ..	1,805	20	3.2	..	(a)	..	(a)
Jordan .. ..	(h) 1,690	45	(g) 2.6	..	(a)	1952	103.2
Lebanon .. ..	1,646	410	2.8	..	(a)	..	(a)
Singapore .. ..	1,634	7,295	4.6	1961	29.6	1957	111.7
Western New Guinea ..	735	5	0.7	..	(a)	..	(a)
Cyprus .. ..	563	158	1.5	1960	20.1	..	(a)
Europe—							
Germany, Federal Re- public of .. ..	53,373	558	1.2	1961	7.3	1956	88.3
United Kingdom of Great Britain and Northern Ireland ..	52,539	558	0.5	1961	5.8	1961	93.7
Italy .. ..	49,361	424	0.5	1961	9.4	1961	96.1
France .. ..	45,542	214	0.9	1961	7.4	1954	92.2
Spain .. ..	30,128	155	0.8	1961	12.7	1960	94.2
Poland .. ..	29,703	247	1.8	1961	13.1	1960	93.6
Yugoslavia .. ..	(h) 18,538	188	(g) 1.1	1961	13.6	1961	94.9
Romania .. ..	18,403	201	1.3	1961	8.8	1956	94.6
Eastern Germany ..	16,164	388	-0.7	..	(a)	1950	80.2
Czechoslovakia ..	13,654	277	0.9	1961	6.6	1950	94.6
Netherlands .. ..	11,480	885	1.3	1961	13.6	1947	99.1
Hungary .. ..	9,999	278	0.6	1961	4.4	1960	93.3
Belgium .. ..	9,153	777	0.6	1960	4.0	1947	97.4
Portugal .. ..	8,921	252	0.5	1961	12.9	1960	92.7
Greece .. ..	8,327	165	0.9	..	(a)	1951	95.2
Bulgaria .. ..	7,867	184	1.0	1960	9.7	1956	99.6
Sweden .. ..	7,480	43	0.6	1961	4.1	1960	99.5
Austria .. ..	7,081	219	0.2	1961	6.5	1961	88.1
Switzerland .. ..	5,351	336	1.3	1961	8.8	1950	93.0
Denmark .. ..	4,581	276	0.7	1960	7.0	1955	98.0
Finland .. ..	4,449	34	1.0	1961	9.4	1950	91.6
Norway .. ..	3,586	29	0.9	1961	8.4	1950	98.3
Ireland .. ..	2,834	104	-0.6	1961	9.0	1961	101.1
Turkey (in Europe) ..	2,271	249	(a)	..	(a)	..	(a)
West Berlin .. ..	2,204	11,849	0.1	1961	-5.7	1956	73.9
Albania .. ..	1,607	145	3.1	..	(a)	1955	105.2
East Berlin .. ..	1,077	6,904	-1.3	..	(a)	1950	74.2
Oceania—							
Australia .. ..	10,275	3	2.2	1961	14.3	1961	102.2
New Zealand .. ..	2,372	23	2.1	1961	18.1	1961	101.0
New Guinea (Aust. Admin.) .. ..	1,402	15	2.8	..	(a)	..	(a)
Papua .. ..	503	6	3.4	..	(a)	..	(a)
Union of Soviet Socialist Republics .. ..	214,400	25	(a)	1960	17.8	1959	81.9

(a) Not available or available information relates to a segment of population only. (b) 1960-61.  
(c) 1952-60. (d) 1959. (e) 1953-59. (f) 1954-60. (g) 1953-61. (h) 1961.  
(i) 1957. (j) 1953-57. (k) 1956.

Minus sign (-) denotes rate of decrease.

## CHAPTER X

### VITAL STATISTICS

NOTE.—The tables in this chapter are confined to the principal characteristics of vital statistics for Australia, and relate, in the main, to the year 1961, except for the totals of marriages, births, deaths and infant deaths, for which it has been possible to include figures for 1962. Comparisons have been restricted, in general, to the individual years 1958 to 1962 and the five-year periods 1926–30 to 1956–60, while age data have been shown in five-year groups. Comparisons over longer periods, together with more detailed figures such as single age particulars and cross-classifications of various characteristics, will be found in the annual bulletin, *Demography*. Current information is published in the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics* and the *Australian Demographic Review* (a mimeographed series issued at intervals throughout the year on population and vital statistics).

Figures of births and deaths for Australia throughout are exclusive of full-blood aboriginals.

Rates for the period 1954 to 1961 have been recalculated on the basis of revised population figures ascertained from the Census of 30th June, 1961.

Vital statistics for the principal countries of the world are set out in § 7. International Vital Statistics.

#### § 1. Provisions for Registration and Compilation of Statistics

In Australia, vital statistics are compiled from information supplied for the registration of births, deaths and marriages. Each State and Territory has an independent system of registration. Provisions for the civil registration of births, deaths and marriages have been in force in Tasmania from 1839, in Western Australia from 1841, in South Australia from 1842, in Victoria from 1853, and in New South Wales and Queensland (then part of New South Wales) from 1856. Registration in the Territories is administered by the Commonwealth Government, registration in respect of the Northern Territory having been taken over from South Australia in 1911 and in respect of the Australian Capital Territory from New South Wales in 1930. The authority responsible for the registration of births, deaths and marriages occurring within his particular State or Territory is the Registrar-General (the Government Statist in Victoria) or the Principal Registrar.

In the Australian Capital Territory and the Northern Territory, information concerning a birth is required to be supplied within 21 days and in South Australia in 42 days, while in all other States 60 days is allowed. In all States, however, provision has been made for the late registration of births. For the registration of a death, the period allowed is 8 days in Tasmania, 10 days in South Australia, 14 days in Western Australia, the Northern Territory and the Australian Capital Territory, 21 days in Victoria and 30 days in New South Wales and Queensland. Provision is made in all States and Territories for the celebration of marriages by ministers of religion registered for that purpose with the Registrar-General (the Government Statist in Victoria) or the Principal Registrar of Births, Deaths and Marriages of the State or Territory, and also by certain civil officers. In all cases, the celebrant, whether minister of religion or civil officer, is required to register particulars of the parties married with the Registrar-General's Office. In Victoria, Western Australia, the Northern Territory and the Australian Capital Territory, registration of a marriage is required immediately following the ceremony, in Tasmania and South Australia within 7 days, and in New South Wales and Queensland within 30 days.

The registration of stillbirths is compulsory in all the States and Territories, except Tasmania. Western Australia was the first State to introduce compulsory registration in 1908, followed by the Australian Capital Territory in 1930, New South Wales in 1935, South Australia in 1937, the Northern Territory in 1949, Victoria in 1953, and Queensland in 1959. Registration is effected in New South Wales, Western Australia, the Northern Territory and the Australian Capital Territory as a birth and subsequent death; in the other States as a stillbirth. Though registration is not compulsory in Tasmania, it is believed that for various reasons nearly all stillbirths are registered voluntarily. In this chapter, stillbirths have been excluded from all tables of births and deaths and are shown only in those specially relating to stillbirths.

The data for the compilation of vital statistics are obtained from registry records and dispatched, through the Statistical Office in each State and Territory, to the Commonwealth Statistician. The compilation and publication of vital statistics for Australia is one of the functions of the Commonwealth Statistician. The Deputy Commonwealth Statisticians compile and publish statistics relating to their respective States.

## § 2. Marriages

1. **Number of Marriages.**—The numbers of marriages registered in each State and Territory in five-year periods from 1926–30 to 1956–60, and for each of the years 1958 to 1962, are shown in the following table. Annual averages for each five-year period from 1861 to 1950 were published in Official Year Book No. 39, page 575. A graph showing the number of marriages in each year from 1870 to 1962 appears on page 365 of this issue.

## MARRIAGES

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES									
1926–30 ..	19,253	12,955	6,279	4,036	3,167	1,506	23	30	47,249
1931–35 ..	18,742	12,773	6,950	3,967	3,328	1,638	29	53	47,480
1936–40 ..	25,295	17,784	8,982	5,726	4,399	2,187	83	85	64,541
1941–45 ..	28,506	19,450	10,563	6,517	4,668	2,097	71	109	71,981
1946–50 ..	30,162	20,453	10,666	6,581	5,205	2,529	114	181	75,891
1951–55 ..	28,483	20,007	10,171	6,290	5,232	2,539	146	234	73,102
1956–60 ..	28,432	20,422	10,254	6,517	5,145	2,573	190	321	73,854
ANNUAL TOTALS									
1958 ..	28,554	20,649	10,255	6,505	5,038	2,475	201	324	74,001
1959 ..	28,201	20,456	10,581	6,614	5,387	2,567	205	352	74,363
1960 ..	29,328	20,627	10,227	6,607	5,323	2,713	208	395	75,428
1961 ..	29,773	21,264	10,392	6,804	5,150	2,677	207	419	76,686
1962 ..	30,360	22,393	10,642	7,021	5,466	2,485	243	480	79,090

2. **Crude Marriage Rates.**—The crude marriage rates for each State and Territory from 1926–30 to 1956–60, and for each of the years 1958 to 1962, are given hereunder.

## CRUDE MARRIAGE RATES(a)

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES									
1926–30 ..	7.86	7.42	7.10	7.12	7.80	6.97	5.11	3.86	7.52
1931–35 ..	7.20	7.02	7.35	6.83	7.58	7.19	5.92	5.74	7.16
1936–40 ..	9.29	9.52	8.80	9.65	9.49	9.25	13.28	7.22	9.35
1941–45 ..	9.97	9.86	10.04	10.61	9.74	8.61	7.18	7.57	9.94
1946–50 ..	9.90	9.72	9.41	9.87	10.01	9.56	9.39	9.36	9.77
1951–55 ..	8.41	8.34	7.91	8.11	8.44	8.35	9.13	8.20	8.29
1956–60 ..	7.70	7.50	7.14	7.26	7.36	7.69	8.63	7.51	7.50
ANNUAL RATES									
1958 ..	7.73	7.60	7.14	7.25	7.20	7.38	9.24	7.88	7.52
1959 ..	7.50	7.35	7.23	7.18	7.57	7.52	8.68	7.55	7.40
1960 ..	7.65	7.22	6.86	6.99	7.36	7.82	8.28	7.51	7.34
1961 ..	7.61	7.26	6.86	7.02	6.98	7.57	7.89	7.13	7.30
1962 ..	7.63	7.49	6.91	7.10	7.24	6.91	9.01	7.31	7.39

(a) Number of marriages per 1,000 of mean population.

The crude marriage rates of Australia and the principal countries of the world are shown for the latest available year in § 7. International Vital Statistics.

3. **Marriage Rates based on Marriageable Population.**—As the marriage rates in some international tabulations are based on the unmarried population aged 15 years and over, the corresponding rates have been calculated for Australia for the nine census periods to 1960–62. The period in each case comprises the census year with the year immediately preceding and the year immediately following, and the figures are as follows.

**PERSONS MARRYING PER 1,000 OF UNMARRIED POPULATION: AUSTRALIA**

Period				Rate(a)	Period				Rate(a)
1880–82	..	..	..	48.63	1932–34	..	..	..	42.88
1890–92	..	..	..	44.04	1946–48	..	..	..	71.24
1900–02	..	..	..	42.14	1953–55	..	..	..	65.32
1910–12	..	..	..	50.12	1960–62	..	..	..	62.27
1920–22	..	..	..	55.97					

(a) Average annual number of persons who married per 1,000 unmarried persons, including widowed and divorced, aged 15 years and over.

4. **Age and Conjugal Condition at Marriage.**—(i) *General.* Particulars of age at marriage in age groups, and previous conjugal condition of bridegrooms and brides in 1961 are given hereunder. There were 8,469 males under 21 years of age married during 1961, while the corresponding number of females was 29,986. At the other extreme, there were 1,040 bridegrooms and 526 brides in the age group 65 years and over.

**AGE AND CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES:  
AUSTRALIA, 1961**

Age at marriage (years)	Bridegrooms				Brides			
	Bachelors	Widowers	Divorced	Total	Spinsters	Widows	Divorced	Total
Under 20	4,299	..	..	4,299	20,806	10	5	20,821
20–24	34,650	14	66	34,730	35,296	89	257	35,642
25–29	18,208	56	417	18,681	7,312	175	915	8,402
30–34	6,977	121	886	7,984	2,501	258	1,044	3,803
35–39	2,638	193	901	3,732	1,205	334	930	2,469
40–44	1,012	227	716	1,955	570	382	638	1,590
45–49	624	360	616	1,600	391	520	498	1,409
50–54	330	386	471	1,187	255	457	271	983
55–59	181	446	225	852	138	333	126	597
60–64	94	398	134	626	70	321	53	444
65 and over	105	831	104	1,040	65	422	39	526
Total	69,118	3,032	4,536	76,686	68,609	3,301	4,776	76,686



(ii) *Proportional Distribution.* In the following table, the proportional distribution of bridegrooms and brides according to previous conjugal condition is shown in five-year periods from 1926-30 to 1956-60 and for each of the years 1957 to 1961.

**CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES: PROPORTIONAL DISTRIBUTION, AUSTRALIA**  
(Per cent.)

Period	Bridegrooms				Brides			
	Bachelors	Widowers	Divorced	Total	Spinsters	Widows	Divorced	Total
1926-30 ..	92.31	5.93	1.76	100.00	93.46	4.55	1.99	100.00
1931-35 ..	92.63	5.39	1.98	100.00	94.37	3.53	2.10	100.00
1936-40 ..	92.59	4.82	2.59	100.00	93.94	3.38	2.68	100.00
1941-45 ..	91.44	4.77	3.79	100.00	92.11	3.93	3.96	100.00
1946-50 ..	88.82	4.74	6.44	100.00	88.71	4.74	6.55	100.00
1951-55 ..	88.77	4.63	6.60	100.00	88.04	4.81	7.15	100.00
1956-60 ..	89.86	4.18	5.96	100.00	88.80	4.47	6.73	100.00
1957 ..	89.92	4.27	5.81	100.00	88.84	4.56	6.60	100.00
1958 ..	90.08	4.10	5.82	100.00	89.13	4.28	6.59	100.00
1959 ..	89.66	4.21	6.13	100.00	88.62	4.44	6.94	100.00
1960 ..	90.04	4.00	5.96	100.00	88.93	4.43	6.64	100.00
1961 ..	90.13	3.95	5.92	100.00	89.47	4.30	6.23	100.00

(iii) *Relative Ages of Bridegrooms and Brides.* The relative ages of bridegrooms and brides in 1961 are shown below in age groups of five years.

**RELATIVE AGES OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1961**

Age of bridegroom (years)	Total bridegrooms	Age of bride (years)							
		Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 and over
Under 20 ..	4,299	17	3,607	651	21	3	..	..	..
20-24 ..	34,730	11	13,252	19,976	1,302	142	39	7	1
25-29 ..	18,681	5	3,224	11,175	3,345	713	170	28	21
30-34 ..	7,984	1	572	2,973	2,386	1,333	497	145	77
35-39 ..	3,732	..	87	662	921	877	725	277	183
40-44 ..	1,955	..	27	144	265	419	474	348	278
45-49 ..	1,600	..	12	47	107	182	331	362	559
50-54 ..	1,187	..	2	7	36	91	153	234	664
55-59 ..	852	..	2	6	15	31	56	109	633
60-64 ..	626	..	2	..	2	10	16	48	548
65 and over ..	1,040	..	..	1	2	2	8	32	995
<b>Total Brides</b>	<b>76,686</b>	<b>34</b>	<b>20,787</b>	<b>35,642</b>	<b>8,402</b>	<b>3,803</b>	<b>2,469</b>	<b>1,590</b>	<b>3,959</b>

(iv) *Average Ages of Bridegrooms and Brides.* The average age at marriage of brides and bridegrooms has declined during recent years. The average ages, in years, of brides for each of the five years to 1961 were:—1957, 25.18; 1958, 25.00; 1959, 25.01; 1960, 24.84; and 1961, 24.73. The average ages, in years, of bridegrooms were 28.54 in 1957, 28.36 in 1958, 28.39 in 1959, 28.15 in 1960 and 28.07 in 1961. The difference in the average age at marriage between brides and bridegrooms is generally just over three years, the difference in 1961 being 3.34 years.

5. **Previous Conjugal Condition.**—The following table shows the relative conjugal condition of bridegrooms and brides in 1961.

#### CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1961

Conjugal condition of bridegrooms	Total bridegrooms	Conjugal condition of brides		
		Spinsters	Widows	Divorced
Bachelors .. .. .	69,118	65,189	1,244	2,685
Widowers .. .. .	3,032	998	1,396	638
Divorced .. .. .	4,536	2,422	661	1,453
<b>Total Brides .. .. .</b>	<b>76,686</b>	<b>68,609</b>	<b>3,301</b>	<b>4,776</b>

6. **Birthplaces of Persons Marrying.**—The following table shows the relative birthplaces of bridegrooms and brides married in 1961.

#### RELATIVE BIRTHPLACES OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1961

Birthplace of bridegroom	Birthplace of bride											Total bridegrooms
	Australia	New Zealand	United Kingdom and Ireland	Germany	Greece	Italy	Netherlands	Poland	Yugoslavia	Other European	Other and unspecified	
Australia ..	54,253	204	2,496	232	46	76	322	40	34	256	394	58,353
New Zealand ..	347	40	30	2	1	1	4	1	1	5	4	436
United Kingdom and Ireland ..	3,286	41	1,052	49	2	6	37	7	6	58	73	4,617
Germany ..	385	8	69	465	4	6	29	14	12	84	15	1,091
Greece ..	139	1	11	11	2,012	3	3	1	4	15	46	2,246
Italy ..	696	9	59	24	17	2,338	31	8	57	60	34	3,333
Netherlands ..	552	2	65	29	2	1	381	2	4	14	33	1,085
Poland ..	137	3	27	35	6	5	5	275	6	56	19	574
Yugoslavia ..	222	1	36	37	35	47	15	18	416	43	12	882
Other European ..	921	23	130	175	41	25	49	58	57	986	73	2,538
Other and unspecified ..	774	15	83	17	80	19	35	8	5	56	439	1,531
Total Brides ..	61,712	347	4,058	1,076	2,246	2,527	911	432	602	1,633	1,142	76,686

7. **Occupation of Bridegrooms.**—The distribution of the 76,686 bridegrooms for 1961 amongst classes of occupations was as follows:—craftsmen, 25,875; administrative and clerical workers, 9,815; labourers, 8,875; rural and mining workers, 8,049; professional and technical workers, 6,637; workers in transport and communication, 6,029; sales workers, 5,248; service, sport and other workers, 5,196; persons not in the work force, 962.

8. **Celebration of Marriages.**—In all the States, marriages may be celebrated either by ministers of religion who are registered for that purpose with the Registrar-General or by certain civil officers, in most cases district registrars, but most of the marriages are celebrated by ministers of religion. The registered ministers in 1961 belonged to more than forty different denominations, some of which, however, have only very few adherents. A number of these have been combined under the heading "Other Christian". The figures for 1961 are shown in the following table.

## MARRIAGES IN EACH DENOMINATION, 1961

Denomination	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									No.	Proportion of total
Church of England ..	9,124	4,857	2,817	1,350	1,522	974	33	121	20,798	27.12
Roman Catholic ..	8,339	6,037	2,823	1,420	1,352	567	50	139	20,727	27.03
Methodist ..	2,602	2,584	1,613	1,645	616	406	..	20	9,486	12.37
Presbyterian ..	2,947	3,217	1,718	260	334	152	29	33	8,690	11.33
Orthodox (Greek, Russian, etc.)	727	929	93	240	58	7	14	5	2,073	2.70
Baptist ..	419	336	182	167	68	75	..	4	1,251	1.63
Lutheran ..	182	269	251	400	21	9	..	6	1,138	1.48
Congregational	237	249	80	229	102	31	..	2	930	1.21
Churches of Christ ..	121	375	78	197	105	22	3	6	907	1.18
Salvation Army	124	113	99	48	29	25	4	..	442	0.58
Seventh-day Adventist ..	80	47	41	18	25	10	..	..	221	0.29
United Church ..	..	..	..	3	..	..	31	1	35	0.05
Unitarian ..	3	23	..	4	..	..	..	..	30	0.04
Other Christian ..	174	132	203	49	145	36	2	..	741	0.97
Hebrew ..	119	166	2	2	10	1	..	..	300	0.39
Other Non-Christian ..	..	..	..	1	..	..	..	..	1	0.00
<i>Total</i> ..	<i>25,198</i>	<i>19,334</i>	<i>10,000</i>	<i>6,033</i>	<i>4,387</i>	<i>2,315</i>	<i>166</i>	<i>337</i>	<i>67,770</i>	<i>88.37</i>
Civil Officers ..	4,575	1,930	392	771	763	362	41	82	8,916	11.63
<b>Grand Total</b>	<b>29,773</b>	<b>21,264</b>	<b>10,392</b>	<b>6,804</b>	<b>5,150</b>	<b>2,677</b>	<b>207</b>	<b>419</b>	<b>76,686</b>	<b>100.00</b>

## PROPORTION OF TOTAL

(Per cent.)

Denominational	84.63	90.92	96.23	88.67	85.18	86.48	80.19	80.43	88.37
Civil ..	15.37	9.08	3.77	11.33	14.82	13.52	19.81	19.57	11.63

## § 3. Divorce

The number of dissolutions of marriage, nullities of marriage and judicial separations in 1961 was 6,711 and in 1962, 7,265. Further information may be found in Chapter XVI. Public Justice.

## § 4. Fertility and Reproduction

1. **Introduction.**—Of the two elements of increase in the population, natural increase and net migration, the former has been by far the more significant in Australia for many years. The level of natural increase depends on the excess of births over deaths, and the relation between fertility and mortality determines the rate of reproduction or replacement of the population.

2. **Number of Live Births and Confinements.**—(i) *Year 1961.* There are various methods of measuring the fertility of the population by relating the number of births to the numbers of the population. In each, the basic data are, of course, the numbers of live births.

The number of live births registered in Australia during 1961 is shown in the following table. The table shows also the number of confinements resulting in one or more live births. The figures exclude cases where the births were of still-born children only.

## LIVE BIRTHS AND CONFINEMENTS, 1961

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W.A.	Tas.	N.T.	A.C.T.	Aust.
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## LIVE BIRTHS

Single births	84,535	64,452	35,819	21,934	16,749	8,761	848	1,680	234,778
Twins ..	1,833	1,409	806	459	326	219	30	54	5,136
Triplets ..	24	21	12	6	3	2	..	..	68
Quadruplets	..	4	..	..	..	..	..	..	4
Males ..	44,224	33,875	18,863	11,402	8,800	4,635	446	867	123,112
Females ..	42,168	32,011	17,774	10,997	8,278	4,347	432	867	116,874
Total ..	86,392	65,886	36,637	22,399	17,078	8,982	878	1,734	239,986

## STILLBIRTHS ASSOCIATED WITH MULTIPLE BIRTHS INCLUDED ABOVE

Twins ..	51	17	22	7	4	7	2	..	110
Triplets ..	..	..	..	..	..	1	..	..	1

## CONFINEMENTS RESULTING IN BIRTHS SHOWN ABOVE

Nuptial ..	80,951	62,504	33,815	21,156	15,964	8,474	745	1,673	225,282
Ex-nuptial ..	4,534	2,669	2,422	1,013	951	401	119	34	12,143
Total ..	85,485	65,173	36,237	22,169	16,915	8,875	864	1,707	237,425

NOTE.—Owing to the registration procedure adopted in some States, it is possible that in some cases where one child only of a multiple pregnancy was live-born, the confinement has been treated as a single birth. However, the numbers of multiple births are not significantly affected. See also para. 12, p. 371.

(ii) *Live Births, Years 1926 to 1962.* The average annual number of live births in each State and Territory for each five-year period from 1926 to 1960 and the total number of live births for each year from 1958 to 1962 are given in the following table. Corresponding figures for each five-year period from 1861 to 1950 were published in Official Year Book No. 39, page 583.

## LIVE BIRTHS

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES									
1926-30 ..	53,308	34,333	19,361	11,006	8,748	4,819	70	118	131,763
1931-35 ..	44,964	28,380	17,480	8,646	8,061	4,547	79	145	112,302
1936-40 ..	47,679	30,282	19,534	9,388	8,877	4,866	125	221	120,972
1941-45 ..	56,583	38,002	23,431	12,546	10,409	5,418	113	384	146,886
1946-50 ..	68,856	47,372	28,003	16,270	13,130	7,064	289	734	181,718
1951-55 ..	73,737	53,770	30,983	18,045	15,724	7,774	468	922	201,423
1956-60 ..	79,613	61,275	34,171	19,977	16,922	8,517	694	1,286	222,459

ANNUAL TOTALS									
1958 ..	80,045	61,269	33,872	20,047	16,731	8,568	697	1,275	222,504
1959 ..	80,866	62,245	35,599	20,372	17,111	8,625	796	1,362	226,976
1960 ..	81,983	64,025	35,213	20,966	16,926	8,853	777	1,583	230,326
1961 ..	86,392	65,886	36,637	22,399	17,078	8,982	878	1,734	239,986
1962 ..	85,439	65,890	35,690	21,361	17,064	8,894	924	1,819	237,081

A graph showing the number of births in each year from 1870 to 1962 will be found on page 365.

3. *Crude Birth Rates.*—The oldest and most popular method of measuring fertility is to relate the number of births to the total population, thus obtaining the crude birth rate. The crude birth rate measures the rate per thousand persons (irrespective of age or sex) at which the population has added to its numbers by way of births during a given period. Other methods of measuring fertility are shown on pages 363 *et seq.*

Crude birth rates for each five year period from 1926 to 1960 and for each year from 1958 to 1962 for each State and Territory are set out below.

## CRUDE BIRTH RATES(a)

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES									
1926-30 ..	21.76	19.65	21.90	19.41	21.54	22.29	15.60	14.96	20.98
1931-35 ..	17.28	15.60	18.48	14.89	18.36	19.95	15.99	15.77	16.94
1936-40 ..	17.51	16.20	19.48	15.82	19.16	20.58	19.96	18.68	17.52
1941-45 ..	19.79	19.27	22.28	20.43	21.72	22.23	11.40	26.82	20.28
1946-50 ..	22.60	22.51	24.69	24.41	25.24	26.71	23.77	37.92	23.39
1951-55 ..	21.78	22.42	24.11	23.25	25.37	25.58	29.37	32.22	22.86
1956-60 ..	21.55	22.52	23.80	22.27	24.20	25.45	31.49	30.10	22.59

ANNUAL RATES									
1958 ..	21.66	22.55	23.59	22.35	23.90	25.55	32.05	31.01	22.60
1959 ..	21.49	22.36	24.31	22.12	24.04	25.26	33.70	29.22	22.57
1960 ..	21.38	22.41	23.62	22.19	23.41	25.52	30.95	30.12	22.42
1961 ..	22.07	22.51	24.17	23.10	23.16	25.40	33.46	29.49	22.85
1962 ..	21.46	22.04	23.19	21.59	22.59	24.75	34.26	27.69	22.14

(a) Number of births per 1,000 of mean population.

NOTE.—The birth rates in the table above are based on *live births registered in the respective States and Territories*. Some confinements, however, take place in States other than the State in which the mother usually resides, particularly in areas near State borders.

The variations thus caused in the birth rates for the States and Territories *by referring the birth registrations to the mother's usual residence* are shown by the following corrected rates for 1962:—New South Wales, 21.51; Victoria, 22.02; Queensland, 23.12; South Australia, 21.49; Western Australia, 22.61; Tasmania, 24.80; Northern Territory, 35.59; and Australian Capital Territory, 28.01.

See Official Year Book No. 47 (p. 339) for the effect of the variations in the availability of hospital facilities on the birth rate in the Australian Capital Territory and in the neighbouring town of Queanbeyan in New South Wales.

A graph showing the birth rate for each year from 1870 to 1962 will be found on page 366.

The crude birth rates of Australia and the principal countries of the world for the latest available year are shown in § 7. International Vital Statistics.

4. **Fertility Rates.**—The principal demographic factors affecting the level of crude birth rates are the proportion of women of child-bearing age in the population and the proportion of such women who are married. These factors may vary considerably at different periods and for different countries, and a population with a higher proportion of married women of child-bearing age will have a much higher crude birth rate than one with a low proportion, although the fertilities of the two populations may be identical.

In order to compare fertilities, births are sometimes related to the number of women of child-bearing age or, alternatively, nuptial births are related to the number of married women of child-bearing age. Thus births are related to potential mothers, giving the fertility rate.

The following table sets out for certain periods, commencing with 1880–82, the number of births per thousand of mean population, the number of births per thousand women of child-bearing age and the number of nuptial births per thousand married women of child-bearing age. For purposes of this table, the child-bearing age has been taken to be 15–44 years inclusive, but births to mothers who were stated to be under 15 or over 44 years have been included in the compilations.

CRUDE BIRTH RATES AND FERTILITY RATES: AUSTRALIA

Period	Average annual rates			Index nos. (Base: 1880–82 = 100)		
	Crude birth rate(a)	Fertility rates		Crude birth rate(a)	Fertility rates	
		Births per 1,000 women aged 15–44 years	Nuptial births per 1,000 married women aged 15–44 years		Births per 1,000 women aged 15–44 years	Nuptial births per 1,000 married women aged 15–44 years
1880–82..	35.3	170	321	100	100	100
1890–92..	34.5	159	332	98	94	103
1900–02..	27.2	117	235	77	69	73
1910–12..	27.2	117	236	77	69	74
1920–22..	25.0	107	197	71	63	61
1932–34..	16.7	71	131	47	42	41
1946–48..	23.6	104	160	67	61	50
1953–55..	22.7	109	149	64	64	46
1960–62..	22.5	112	(b)	64	66	(b)

(a) Number of births per 1,000 of mean population. (b) Not yet available.

The table above shows how increasing proportions both of women of child-bearing age and of married women of child-bearing age inflate the crude birth rate. Thus, while the nuptial birth rate for married women increased by only 22 per cent. over the period 1932–34 to 1946–48, the crude birth rate rose by 41 per cent. owing principally to the greatly increased number of marriages during that period.

5. **Age-specific Fertility Rates for Females.**—So long as customary ages at marriage do not change drastically, the main demographic factor affecting the number of births is the age composition of the potential mothers in the population. Within the child-bearing group, the fertility of women of different ages varies considerably, and a clearer view of the fertility of the population can be obtained from an examination of what are known as its age-specific fertility rates, that is, the number of births to women of specified ages per thousand women of those particular ages.

Age-specific fertility rates are more commonly expressed in age groups than in single ages. In the following table, such rates, calculated in terms of female births for the purpose of obtaining the gross and net reproduction rates described in para. 6, are shown in five-year age groups for Australia for the period 1926 to 1961.

#### AGE-SPECIFIC FERTILITY RATES(a): AUSTRALIA

Age group (years)	1926	1931	1936	1941	1946	1951	1956	1960	1961
15-19 ..	14.02	13.08	12.18	11.90	12.63	18.59	20.84	21.62	22.87
20-24 ..	60.23	53.08	50.33	59.42	73.52	85.84	101.46	107.11	110.01
25-29 ..	76.82	62.47	62.02	70.78	89.51	90.24	98.11	104.99	107.73
30-34 ..	61.90	51.25	46.33	49.72	65.03	59.16	59.65	61.65	63.62
35-39 ..	43.55	33.23	28.89	28.69	37.43	32.29	31.32	30.43	30.53
40-44 ..	17.63	13.61	10.19	9.52	11.87	9.97	9.48	8.93	9.36
45-49 ..	1.90	1.45	1.11	0.80	1.03	0.80	0.76	0.70	0.70

(a) Number of female births per 1,000 women in each age group.

6. **Gross and Net Reproduction Rates for Females.**—A single measure of reproduction, known as the gross reproduction rate, is obtained by adding together the specific fertility rates for each age in the child-bearing group. This measure indicates the number of female children who would be born on an average to women living right through the child-bearing period, if the conditions on which the rate is based continue. The rate is unaffected by the age composition of the potential mothers, and consequently it shows more clearly than the crude birth rate the reproductive propensity of the population. It is, however, an imperfect measure of reproduction because it does not take into account the females who fail to live from birth to the end of the reproductive period. A more accurate measure of this nature is obtained by multiplying the specific fertility rates by the number of females in the corresponding age group of the stationary or life table population and summing the products. Allowance is thus made for the effect of mortality, and the result is known as the net reproduction rate. The net reproduction rate indicates the average number of female children who would be born to women during their lifetime if they were subject at each age to the fertility and mortality rates on which the calculation is based. A constant net reproduction rate of unity indicates that the population will ultimately become stationary. If it continues greater than unity, the population will ultimately increase; if less than unity, it will ultimately decrease. The following table should be read in the light of the comment which follows it and of the index of marriage fertility in paragraph 8 page 369.

#### GROSS AND NET REPRODUCTION RATES: AUSTRALIA

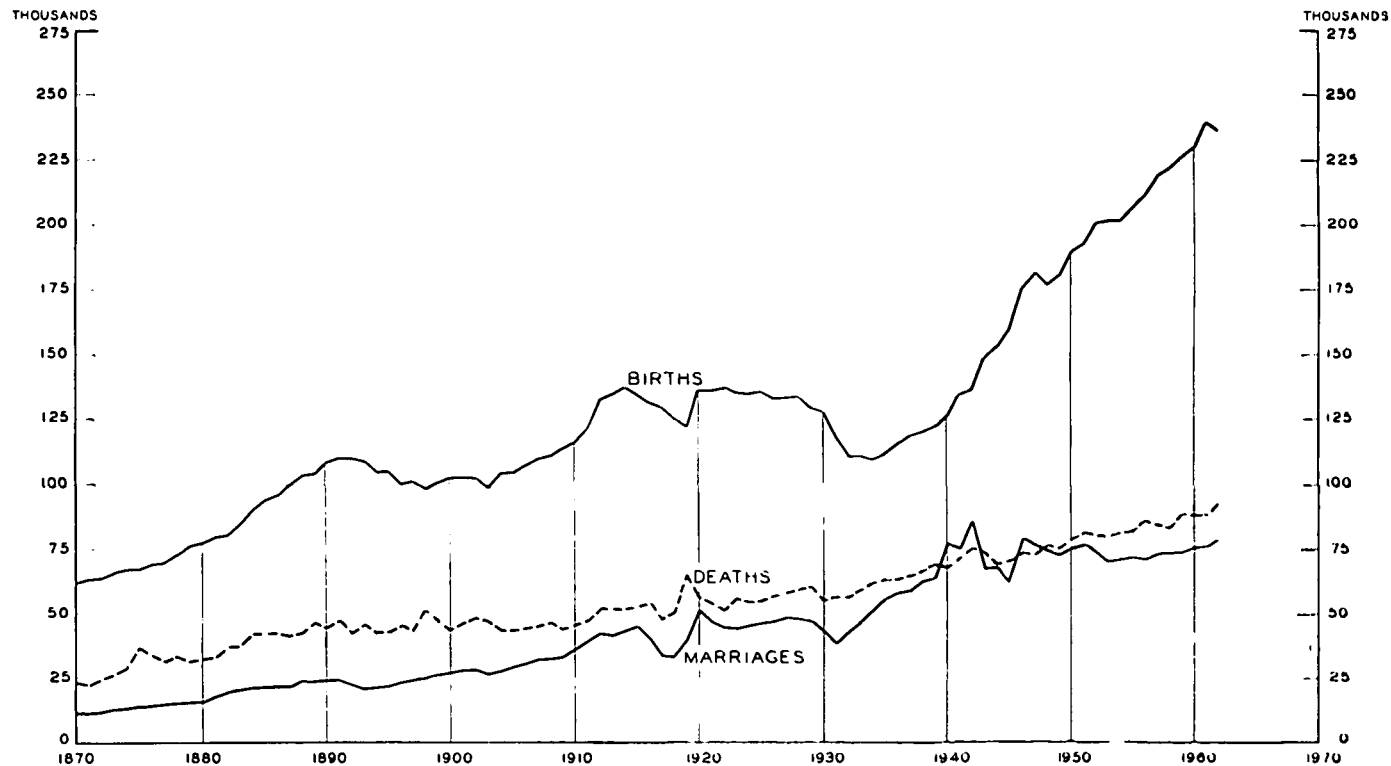
Year	Gross reproduction rate	Net reproduction rate	Year	Gross reproduction rate	Net reproduction rate
1881(a) ..	2.65	(b) 1.88	1947 ..	1.493	(g) 1.416
1891(a) ..	2.30	(b) 1.73	1954 ..	1.558	(h) 1.497
1901(a) ..	1.74	(c) 1.39	1957 ..	1.662	(h) 1.598
1911 ..	1.705	(d) 1.421	1958 ..	1.667	(h) 1.603
1921 ..	1.511	(e) 1.313	1959 ..	1.678	(h) 1.614
1931 ..	1.141	(f) 1.039	1960 ..	1.677	(h) 1.613
1941 ..	1.154	(f) 1.053	1961 ..	1.724	(h) 1.658

(a) Approximate only. (b) 1881-1890 mortality experience used. (c) 1891-1900 mortality experience used. (d) 1901-1910 mortality experience used. (e) 1920-1922 mortality experience used. (f) 1932-1934 mortality experience used. (g) 1946-1948 mortality experience used. (h) 1953-1955 mortality experience used.

NOTE.—It is not strictly correct to assume, as in the calculations of the rates above, that a particular age-specific fertility rate can be applied to a hypothetical group of women reaching that age, without taking account of previous fertility and marriage experience. Reproduction rates are therefore unreliable when birth and marriage rates have been changing. The indexes of marriage fertility shown on the next page are also of doubtful reliability in similar circumstances.

7. **Gross and Net Reproduction Rates, Various Countries.**—In the following table, a comparison is given of the gross and net reproduction rates recorded for various countries in the period 1954 to 1961. These represent the latest available international comparisons.

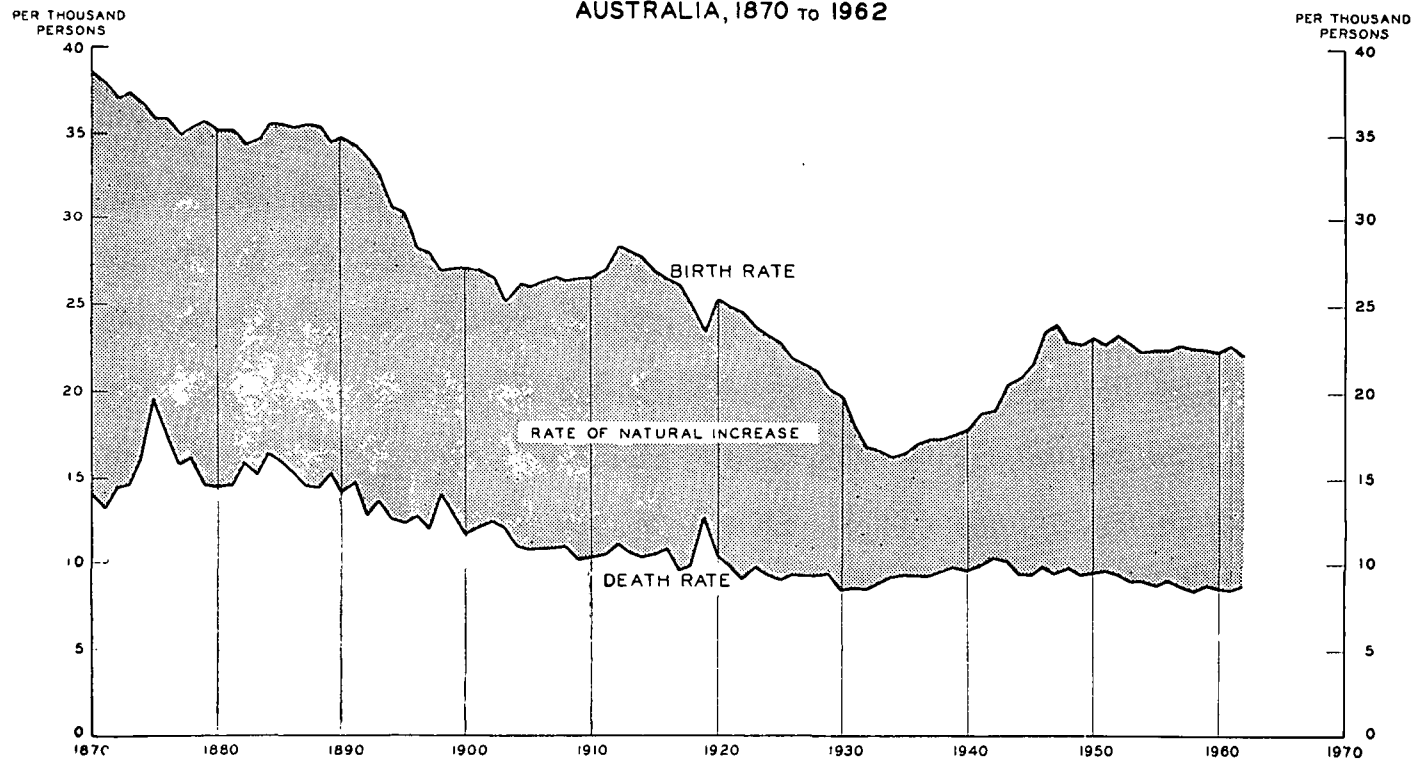
# BIRTHS, DEATHS, AND MARRIAGES: AUSTRALIA, 1870 to 1962





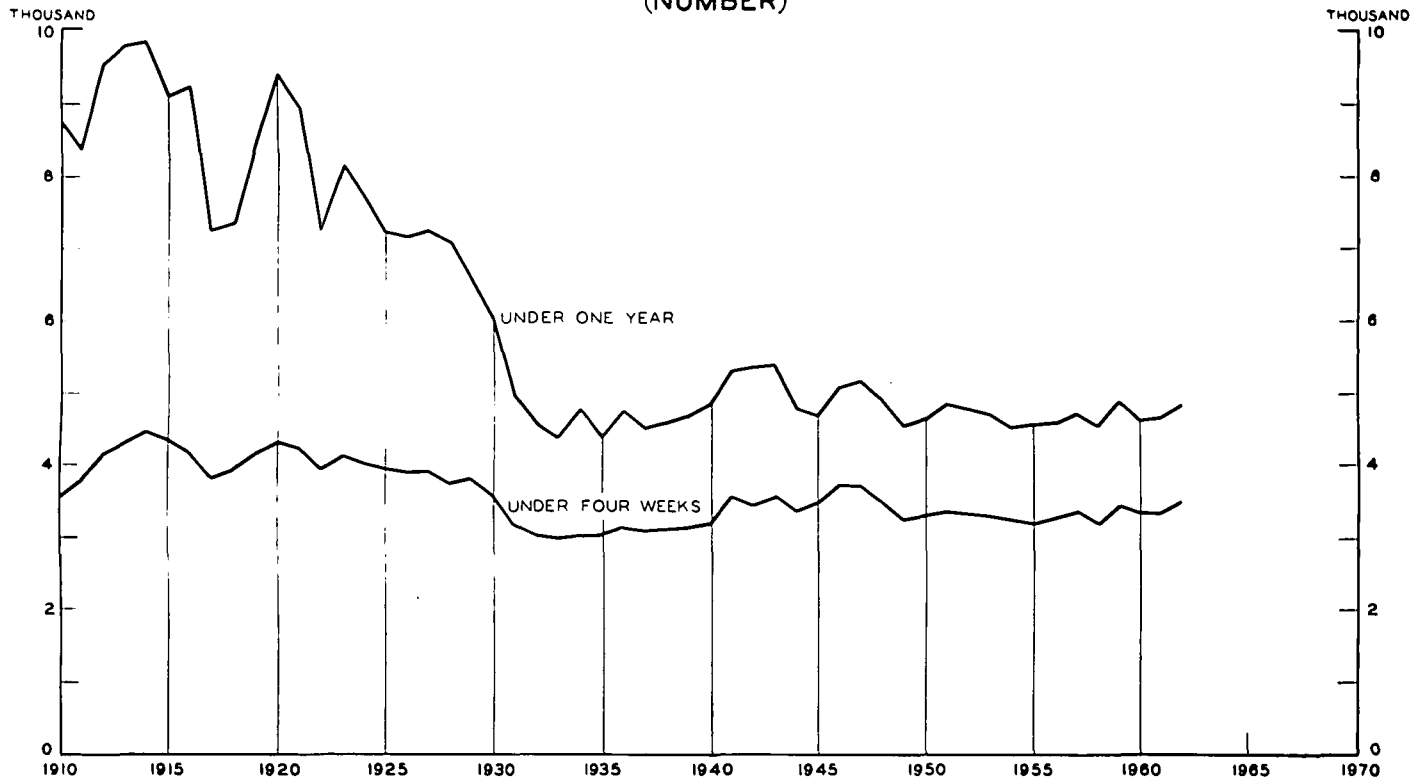
# RATES OF BIRTHS, DEATHS, AND NATURAL INCREASE

AUSTRALIA, 1870 To 1962



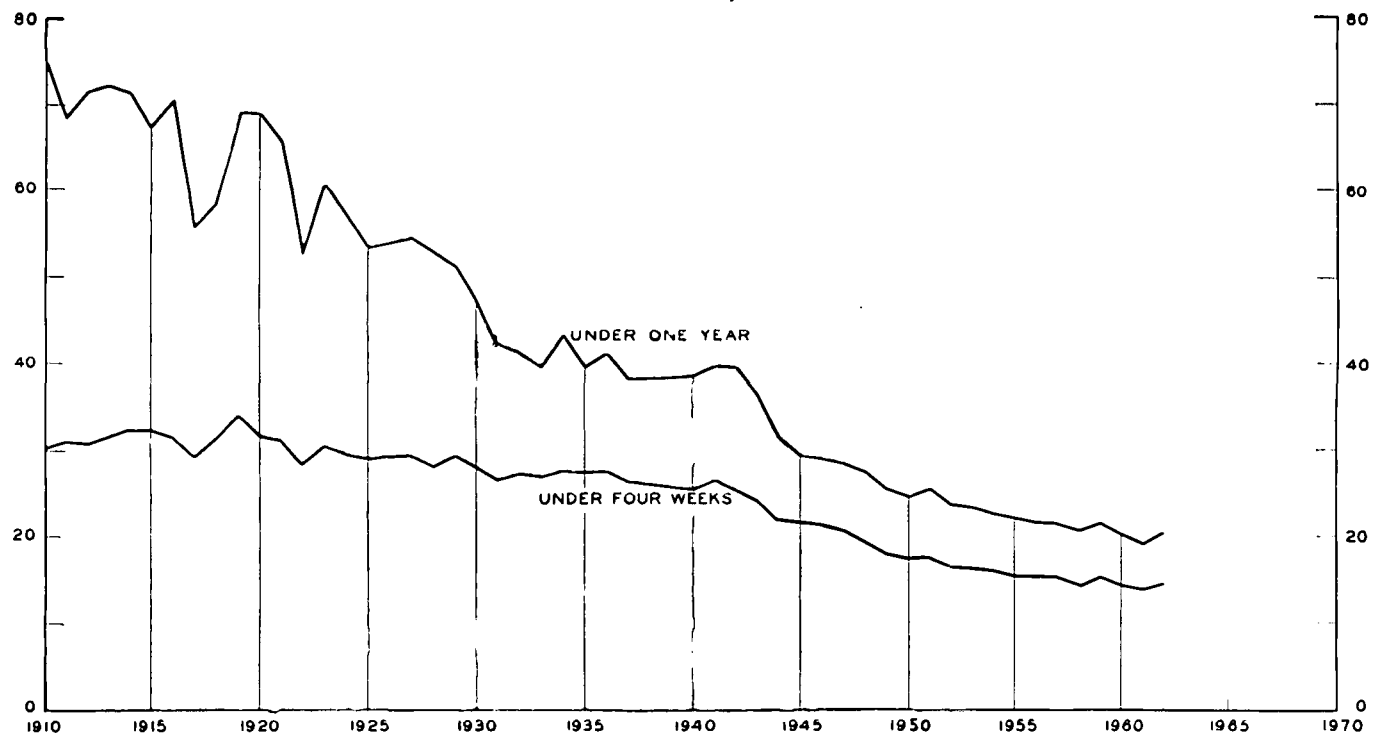
# INFANT DEATHS: AUSTRALIA, 1910 to 1962

(NUMBER)



# INFANT MORTALITY RATES: AUSTRALIA, 1910 to 1962

(INFANT DEATHS PER 1,000 LIVE BIRTHS)



## GROSS AND NET REPRODUCTION RATES: VARIOUS COUNTRIES

Country	Period	Reproduction rate		Country	Period	Reproduction rate	
		Gross	Net			Gross	Net
Thailand..	1954	2.26	1.70	Finland ..	1960	1.29	1.22
New Zealand(a)	1960	1.97	1.90	Austria ..	1960	1.28	1.19
Canada ..	1960	1.90	1.81	Belgium ..	1960	1.24	1.13
United States of America(b)	1959	1.73	1.67	England and Wales	1958	1.22	1.18
Australia(c)	1961	1.72	1.66	Denmark..	1959	1.21	1.11
Ireland, Republic of	1955	1.59	1.45	Czechoslovakia ..	1959	1.16	1.04
Netherlands ..	1960	1.52	1.46	Switzerland ..	1959	1.15	1.09
Portugal ..	1958	1.47	1.26	Germany—			
Scotland ..	1960	1.40	1.35	Federal Rep. ..	1959	1.16	(d)
Norway ..	1959	1.39	1.34	Eastern ..	1955	1.13	(d)
France ..	1960	1.33	1.28	Sweden ..	1959	1.08	1.04
Yugoslavia ..	1959	1.31	1.08	Japan ..	1959	0.99	0.93
				Hungary ..	1960	0.98	0.91

(a) Excludes Maoris. (b) White population only. (c) Excludes full-blood aboriginals. (d) Not available.

In comparing the reproduction rates of the countries shown above, allowance should be made for any differences in years, as the rates for any one country from year to year are affected by variations in the incidence of marriage, as well as the stationary or life table population used.

8. **Fertility of Marriages.**—More satisfactory estimates of the fertility of marriages may be made by relating nuptial confinements in each year to the marriages from which they could have resulted. Confinements of women of a certain number of years duration of marriage are related to the number of marriages taking place that number of years previously. The table below sets out this index of current fertility per marriage in respect of confinements in the individual years shown.

## FERTILITY OF MARRIAGES: AUSTRALIA

Year	Nuptial confinements per marriage	Year	Nuptial confinements per marriage	Year	Nuptial confinements per marriage
1947..	2.55	1952..	2.63	1957..	2.87
1948..	2.44	1953..	2.66	1958..	2.88
1949..	2.45	1954..	2.66	1959..	2.93
1950..	2.56	1955..	2.71	1960..	2.96
1951..	2.55	1956..	2.76	1961..	3.05

NOTE.—See NOTE to table on p. 364.

The figure for a particular year gives the estimated number of children which a marriage would produce according to the fertility conditions of that year. The figures for 1949 and subsequent years present a somewhat inflated index, as many of the births which have been used to calculate the index relate to marriages of immigrants which took place overseas and consequently are not included in Australian marriage records. Partial investigation suggests that this factor probably overstated the index by very little in 1949, but that the overstatement at present is about 8 per cent.

9. **Masculinity of Live Births.**—The masculinity of live births, i.e., the number of males born for every 100 female births, has remained fairly stable for Australia at about 105. But when the number of births for which masculinity is being calculated is small (for example, totals for smaller States), considerable variation is shown. The averages for the ten years 1951–60 were as follows:—New South Wales, 105.38; Victoria, 105.50; Queensland, 105.80; South Australia, 104.89; Western Australia, 105.25; Tasmania, 104.96; Northern Territory, 107.16; Australian Capital Territory, 108.77; Australia, 105.43. The following table shows the figures for Australia for each ten-year period from 1901 to 1960 and for each of the years 1960 to 1962.

**MASCULINITY(a) OF LIVE BIRTHS REGISTERED: AUSTRALIA**

Particulars	1901-10	1911-20	1921-30	1931-40	1941-50	1951-60	1960	1961	1962
Total births ..	105.22	105.27	105.55	105.12	105.38	105.43	105.81	105.34	106.21
Ex-nuptial births	104.08	105.25	105.16	105.36	105.34	103.99	104.22	108.02	106.23

(a) Number of males born for every 100 female births.

10. **Ex-nuptial Live Births.**—(i) *General.* The variations in the proportions of ex-nuptial live births as between the individual States and Territories for 1962 are shown below.

**EX-NUPTIAL LIVE BIRTHS: NUMBER AND PROPORTION, 1962**

Particulars	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number ..	4,771	2,954	2,470	1,017	1,005	472	101	23	12,813
Proportion of total births%	5.58	4.48	6.92	4.76	5.89	5.31	10.93	1.26	5.40

The number and proportion of ex-nuptial births at intervals from 1901 to 1962 are as follows.

**EX-NUPTIAL LIVE BIRTHS: NUMBER AND PROPORTION, AUSTRALIA**

Particulars	Annual average						1958	1959	1960	1961	1962
	1901-10	1911-20	1921-30	1931-40	1941-50	1951-60					
Number ..	6,498	6,836	6,238	5,133	6,780	9,013	10,131	10,687	10,987	12,269	12,813
Proportion of total births%	6.05	5.22	4.66	4.40	4.13	4.25	4.55	4.71	4.77	5.11	5.40

(ii) *Rate of Ex-nuptiality.* A further measure of ex-nuptiality is obtained by calculating the number of ex-nuptial births per thousand of the single, widowed and divorced female population aged from 15 to 44 years. On this basis, the number of ex-nuptial births per 1,000 unmarried women of ages 15 to 44 is as follows:—1880-82, 14.49; 1890-92, 15.93; 1900-02, 13.30; 1910-12, 12.53; 1920-22, 10.50; 1932-34, 6.91; 1946-48, 11.45; and 1953-55, 14.45. Ex-nuptial births to married women, which are not recorded separately, are included in these figures and it is not possible to determine to what extent they influence the trend shown.

(iii) *Comparison of Rates.* The following table shows the relative proportions of ex-nuptial and nuptial births to the total population for periods from 1901.

**CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES (a): AUSTRALIA**

Birth rate	Annual average						1959	1960	1961
	1901-10	1911-20	1921-30	1931-40	1941-50	1951-60			
Ex-nuptial ..	1.60	1.39	1.04	0.76	0.90	0.97	1.06	1.07	1.17
Nuptial ..	24.91	25.18	21.40	16.47	20.99	21.75	21.51	21.35	21.68
<b>Total ..</b>	<b>26.51</b>	<b>26.57</b>	<b>22.44</b>	<b>17.23</b>	<b>21.89</b>	<b>22.72</b>	<b>22.57</b>	<b>22.42</b>	<b>22.85</b>

(a) Number of births per 1,000 of mean population.

11. *Legitimations*.—Acts have been passed in the several States to legitimize children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the *Legitimation Acts*, any child who comes within the scope of their purposes, born before or after the passing thereof, is deemed to be legitimate from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. During 1961, the number of children legitimized in Australia was 992.

12. *Multiple Births*.—Because the current Australian birth statistics are based only on those confinements which resulted in a live-born child, the number of confinements for multiple births for Australia is understated—firstly, because in cases where all children of a multiple birth are still-born the confinement is excluded, and secondly, because some cases of multiple births in which only one child was live-born are registered as single births.

During 1961, multiple births recorded on this basis comprised 2,623 cases of twins, 23 cases of triplets and 1 case of quadruplets, the resultant numbers of live-born and still-born children being respectively 5,136 and 110 for twins, 68 and 1 for triplets, and 4 live-born children for quadruplets. This represents an average of 11.05 recorded cases of twins and 0.10 recorded cases of triplets per 1,000 confinements or, alternatively, mothers of twins represented 1 in every 91 mothers and mothers of triplets 1 in every 10,323. Total cases of multiple births represented 11.15 per 1,000 confinements or 1 in every 90 mothers.

The proportion of mothers of multiple births to total mothers does not vary greatly from year to year.

13. *Ages of Parents*.—The relative ages of the parents of children whose births were registered in 1961 have been tabulated separately for male and female births, multiple births being distinguished from single births. For total births and for multiple births, the relative ages of parents are shown in *Demography*, Bulletin No. 79. In the following table, the relative ages of parents are shown in five-year groups.

#### CONFINEMENTS: RELATIVE AGES OF PARENTS, AUSTRALIA, 1961

Age of father (years) and type of birth	Total	Age of mother (years)									Not stated
		Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 and over		
Under 20 .. .. .	2,562	4	2,170	377	10	..	1	..	..	..	..
20-24 .. .. .	38,262	2	9,634	25,950	2,479	178	13	5	..	..	1
25-29 .. .. .	68,638	2	2,600	33,486	28,894	3,321	311	24	..	..	..
30-34 .. .. .	60,273	..	509	9,459	26,756	20,680	2,652	212	4	..	1
35-39 .. .. .	33,874	..	95	1,701	6,404	14,589	10,160	915	10	..	..
40-44 .. .. .	14,117	..	25	302	1,208	3,822	6,125	2,573	60	..	2
45-49 .. .. .	5,397	..	6	108	322	1,033	2,115	1,622	190	..	1
50-54 .. .. .	1,584	..	2	40	111	250	561	509	111	..	..
55-59 .. .. .	411	..	2	8	40	74	133	119	35	..	..
60-64 .. .. .	124	..	2	3	10	19	52	29	9	..	..
65 and over .. .. .	40	..	..	..	4	8	17	8	3	..	..
Not stated .. .. .	..	..	..	..	..	..	..	..	..	..	..
Mothers of nuptial children {											
Single .. .. .	222,769	8	14,948	70,777	65,478	43,403	21,774	5,958	418	..	5
Twins .. .. .	2,489	..	96	650	757	566	360	56	4	..	..
Triplets(a) .. .. .	24	..	1	7	3	5	6	2	..	..	..
Total .. .. .	225,282	8	15,045	71,434	66,238	43,974	22,140	6,016	422	..	5
Mothers of ex-nuptial children {											
Single .. .. .	12,009	62	3,425	3,506	2,032	1,615	1,015	312	30	..	12
Twins .. .. .	134	..	18	38	17	22	25	13	..	..	1
Triplets .. .. .	..	..	..	..	..	..	..	..	..	..	..
Total .. .. .	12,143	62	3,443	3,544	2,049	1,637	1,040	325	30	..	13
Single .. .. .	234,778	70	18,373	74,283	67,510	45,018	22,789	6,270	448	..	17
Twins .. .. .	2,623	..	114	688	774	588	385	69	4	..	1
Triplets(a) .. .. .	24	..	1	7	3	5	6	2	..	..	..
Total .. .. .	237,425	70	18,488	74,978	68,287	45,611	23,180	6,341	452	..	18

(a) Includes 1 case of quadruplets.

14. *Birthplaces of Parents*.—The following table shows the birthplaces of parents of children whose births from nuptial confinements were registered during 1961.

## NUPTIAL CONFINEMENTS: RELATIVE BIRTHPLACES OF PARENTS, AUSTRALIA, 1961

Birthplace of father	Birthplace of mother											Total fathers
	Australia	New Zealand	United Kingdom and Ireland	Germany	Greece	Italy	Netherlands	Poland	Yugoslavia	Other European	Other and unspecified	
Australia ..	168,453	534	5,084	268	70	217	456	74	66	433	973	176,628
New Zealand ..	639	157	48	3	..	1	1	..	..	3	12	864
United Kingdom and Ireland ..	7,302	67	5,446	72	5	18	69	13	14	127	227	13,360
Germany ..	702	9	105	1,441	9	8	50	24	31	117	38	2,534
Greece ..	323	2	10	6	3,462	7	4	4	9	21	67	3,915
Italy ..	1,640	9	86	48	26	8,478	60	11	82	85	72	10,597
Netherlands ..	1,061	14	108	48	1	9	2,761	5	5	45	112	4,169
Poland ..	441	4	53	133	5	14	23	722	23	157	31	1,606
Yugoslavia ..	314	2	40	101	43	94	26	15	1,199	114	25	1,973
Other European ..	1,768	12	234	302	75	87	70	91	111	2,976	139	5,865
Other and unspecified ..	1,475	23	223	38	165	37	111	18	10	70	1,601	3,771
Total Mothers ..	184,118	833	11,437	2,460	3,861	8,970	3,631	977	1,550	4,148	3,297	225,282

15. *Occupation of Fathers.*—The distribution of the 225,282 fathers of nuptial children for 1961 amongst classes of occupations was as follows:—craftsmen, 70,950; rural and mining workers, 31,680; administrative and clerical workers, 29,482; labourers, 23,326; workers in transport and communication, 20,725; professional and technical workers, 18,717; sales workers, 15,348; service, sport and other workers, 15,054.

16. *Age, Duration of Marriage and Issue of Mothers.*—(i) *General.* The total number of nuptial confinements resulting in live births in 1961 was 225,282, comprising 222,769 single births, 2,489 cases of twins, 23 cases of triplets and 1 case of quadruplets. The following tables relating to previous issue exclude the issue of former marriages and still-born children. On the other hand, they include in some States children by the same father who were born to the mother prior to the marriage. Children born at the present confinement are included in the total issue shown.

(ii) *Duration of Marriage and Issue of Mothers.* The following table shows that in 1961 the duration of marriage of mothers of nuptial children ranged from less than one year to over 25 years and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1961 was 2.60, compared with 2.59 in 1960, 2.58 in 1959, 2.56 in 1958, and 2.54 in 1957.

## NUPTIAL CONFINEMENTS: DURATION OF MARRIAGE AND ISSUE OF MOTHERS, AUSTRALIA, 1961

Duration of marriage	Total married mothers	Total issue	Average issue	Duration of marriage	Total married mothers	Total issue	Average issue
Under 1 year	31,288	31,839	1.02	15 years ..	2,922	14,582	4.99
1 year ..	25,888	33,512	1.29	16 " ..	1,976	10,185	5.15
2 years ..	25,370	45,103	1.78	17 " ..	1,576	8,540	5.42
3 " ..	22,374	47,102	2.11	18 " ..	1,399	7,934	5.67
4 " ..	19,567	47,695	2.44	19 " ..	1,139	6,802	5.97
5 " ..	16,906	46,579	2.76	20 " ..	779	5,045	6.48
6 " ..	14,320	43,460	3.03	21 " ..	539	3,511	6.51
7 " ..	11,883	38,955	3.28	22 " ..	297	2,069	6.97
8 " ..	9,974	35,403	3.55	23 " ..	204	1,561	7.65
9 " ..	9,064	34,090	3.76	24 " ..	117	832	7.11
10 " ..	7,661	30,668	4.00	25 years and over ..	159	1,283	8.07
11 " ..	6,224	26,169	4.20				
12 " ..	5,236	22,954	4.38				
13 " ..	4,581	21,040	4.59				
14 " ..	3,839	18,437	4.80	Total ..	225,282	585,350	2.60

(iii) *Age and Average Issue of Mothers.* The following table shows the average number of children born to mothers of different ages.

**NUPTIAL CONFINEMENTS: AGE AND AVERAGE ISSUE OF  
MOTHERS, AUSTRALIA**

Period	Age of mother (years)							
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over	All ages
Average issue of mothers								
1911-20 ..	1.21	1.75	2.61	3.74	5.11	6.69	8.16	3.25
1921-30 ..	1.20	1.71	2.46	3.48	4.80	6.27	7.74	3.04
1931-40 ..	1.20	1.68	2.30	3.19	4.41	5.89	7.40	2.71
1941-50 ..	1.17	1.56	2.15	2.85	3.67	4.79	6.19	2.37
1951-60 ..	1.23	1.71	2.42	3.12	3.84	4.63	5.57	2.51
1961 ..	1.24	1.78	2.58	3.36	4.04	4.82	5.39	2.60

(iv) *Previous Issue of Mothers, Various Ages.* A classification of mothers by age and previous issue is given for 1961 in the following table.

**NUPTIAL CONFINEMENTS: AGE OF MOTHER AND PREVIOUS ISSUE,  
AUSTRALIA, 1961**

Previous issue	Age of mother (years)								Total married mothers
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over	Not stated	
0 ..	11,860	34,490	15,034	5,826	2,358	566	39	4	70,177
1 ..	2,829	23,621	20,605	8,994	3,204	570	34	..	59,857
2 ..	334	9,559	16,739	11,121	4,399	915	59	..	43,126
3 ..	26	2,955	8,420	8,683	4,396	1,025	56	..	25,561
4 ..	4	663	3,381	4,785	3,169	928	57	1	12,988
5 ..	..	127	1,379	2,349	1,961	664	39	..	6,519
6 ..	..	17	477	1,195	1,094	459	49	..	3,291
7 ..	..	2	150	561	672	296	25	..	1,706
8 ..	..	..	42	282	435	225	21	..	1,005
9 ..	..	..	11	107	233	131	9	..	491
10 and over ..	..	..	..	71	219	237	34	..	561
<b>Total Married Mothers ..</b>	<b>15,053</b>	<b>71,434</b>	<b>66,238</b>	<b>43,974</b>	<b>22,140</b>	<b>6,016</b>	<b>422</b>	<b>5</b>	<b>225,282</b>

(v) *Multiple Births—Previous Issue of Mothers.* Figures regarding the previous issue of married mothers of twins in 1961 show that 613 mothers had no previous issue either living or deceased, 664 had one child previously, 513 had two previous issue, 310 three, 189 four, 96 five, 49 six, 23 seven, 15 eight, 12 nine, 2 ten, one twelve, one thirteen and one fourteen.

Of the 23 cases of nuptial triplets and one case of quadruplets registered during 1961, 7 mothers had no previous issue, 6 had one, 5 had two, 2 had three, 2 had four, 1 had five and 1 had six previous issue.

17. *Nuptial First Births.*—(i) *Duration of Marriage.* The following table shows the interval between marriage and first birth for periods since 1911. In cases of multiple births, the first live-born child only is enumerated.



## NUPTIAL FIRST BIRTHS: DURATION OF MARRIAGE, AUSTRALIA

Duration of marriage	Annual average					1960	1961	
	1911-20	1921-30	1931-40	1941-50	1951-60			
NUMBER OF NUPTIAL FIRST BIRTHS								
Under 8 months .. ..	9,312	10,351	10,677	8,822	11,796	14,301	15,883	
8 months .. ..	1,562	1,530	1,417	2,104	2,144	2,331	2,324	
9 " .. ..	3,517	3,253	2,668	4,298	4,673	4,874	5,212	
10 " .. ..	2,877	2,907	2,202	3,447	3,947	4,024	4,244	
11 " .. ..	2,018	2,152	1,836	2,896	3,287	3,369	3,401	
<i>Total under 1 year</i> .. ..	<i>19,286</i>	<i>20,193</i>	<i>18,800</i>	<i>21,567</i>	<i>25,847</i>	<i>28,899</i>	<i>31,064</i>	
1 year and under 2 years .. ..	8,563	10,133	10,595	17,762	18,463	18,287	18,722	
2 years " " 3 " .. ..	2,626	3,369	4,319	8,028	7,937	7,472	7,654	
3 " " " 4 " .. ..	1,230	1,743	2,214	4,361	4,373	4,257	4,406	
4 " " " 5 " .. ..	700	941	1,205	2,569	2,632	2,646	2,697	
5 " " " 10 " .. ..	980	1,446	1,766	3,936	4,262	4,367	4,534	
10 " " " 15 " .. ..	168	240	289	501	721	797	901	
15 years and over .. ..	42	55	55	94	144	165	199	
Total .. ..	33,595	38,120	39,243	58,818	64,379	66,890	70,177	

PROPORTION OF TOTAL NUPTIAL FIRST BIRTHS  
(Per cent.)

Under 8 months .. ..	27.72	27.15	27.21	15.00	18.32	21.38	22.63
8 months .. ..	4.65	4.01	3.61	3.58	3.33	3.48	3.31
9 " .. ..	10.47	8.53	6.80	7.31	7.26	7.29	7.43
10 " .. ..	8.56	7.63	5.61	5.86	6.13	6.01	6.05
11 " .. ..	6.01	5.65	4.68	4.92	5.11	5.04	4.85
<i>Total under 1 year</i> .. ..	<i>57.41</i>	<i>52.97</i>	<i>47.91</i>	<i>36.67</i>	<i>40.15</i>	<i>43.20</i>	<i>44.27</i>
1 year and under 2 years .. ..	25.49	26.58	27.00	30.20	28.68	27.34	26.68
2 years " " 3 " .. ..	7.82	8.84	11.01	13.65	12.33	11.17	10.91
3 " " " 4 " .. ..	3.66	4.57	5.64	7.41	6.79	6.36	6.28
4 " " " 5 " .. ..	2.08	2.47	3.07	4.37	4.09	3.96	3.84
5 " " " 10 " .. ..	2.92	3.79	4.50	6.69	6.62	6.53	6.46
10 " " " 15 " .. ..	0.50	0.63	0.73	0.85	1.12	1.19	1.28
15 years and over .. ..	0.12	0.15	0.14	0.16	0.22	0.25	0.28
<b>Total</b> .. ..	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

In 1961, the masculinity of nuptial first births was 105.89 and of total births 105.34.

(ii) *Age of Mother and Duration of Marriage.* A summary showing grouped ages and grouped durations of marriage of mothers of nuptial first-born children is given in the following table.

## NUPTIAL FIRST BIRTHS: AGE OF MOTHER AND DURATION OF MARRIAGE, AUSTRALIA, 1961

Duration of marriage	Age of mother (years)								Total
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over	Not stated	
	NUMBER OF NUPTIAL FIRST BIRTHS								
Under 8 months .. ..	7,932	6,199	1,046	437	204	64	1	..	15,883
8 months .. ..	434	1,339	350	135	56	9	1	..	2,324
9 " .. ..	657	3,224	899	304	107	18	2	1	5,212
10 " .. ..	516	2,591	780	253	85	19	..	..	4,244
11 " .. ..	404	2,124	604	182	71	15	1	..	3,401
<i>Total under 1 year</i> .. ..	<i>9,943</i>	<i>15,477</i>	<i>3,679</i>	<i>1,311</i>	<i>523</i>	<i>125</i>	<i>5</i>	<i>1</i>	<i>31,064</i>
1 year and under 2 years .. ..	1,695	11,652	3,584	1,232	452	102	5	..	18,722
2 years " " 3 " .. ..	183	4,329	2,169	626	270	69	6	2	7,654
3 " " " 4 " .. ..	34	1,929	1,757	455	177	52	2	..	4,406
4 " " " 5 " .. ..	5	728	1,463	365	109	22	5	..	2,697
5 " " " 10 " .. ..	..	373	2,318	1,351	391	92	8	1	4,534
10 " " " 15 " .. ..	..	2	64	463	311	57	4	..	901
15 years and over .. ..	..	..	..	23	125	47	4	..	199
<b>Total</b> .. ..	<b>11,860</b>	<b>34,490</b>	<b>15,034</b>	<b>5,826</b>	<b>2,358</b>	<b>566</b>	<b>39</b>	<b>4</b>	<b>70,177</b>

(iii) *Nuptial First Births and Subsequent Births.* The following table provides a comparison between the numbers of nuptial first births and subsequent births in periods since 1911 and shows also the proportion of first to total nuptial confinements.

#### NUPTIAL FIRST BIRTHS AND SUBSEQUENT BIRTHS: AUSTRALIA

Period	Nuptial confinements			Proportion of first to total nuptial confinements (Per cent.)
	First births	Other births	Total	

#### ANNUAL AVERAGES

1911-20	..	..	..	..	33,595	88,997	122,592	27.40
1921-30	..	..	..	..	38,120	88,086	126,206	30.20
1931-40	..	..	..	..	39,243	71,136	110,379	35.55
1941-50	..	..	..	..	58,818	96,994	155,812	37.75
1951-60	..	..	..	..	64,379	136,264	200,643	32.09

#### ANNUAL TOTALS

1957	..	..	..	..	65,792	142,847	208,639	31.53
1958	..	..	..	..	65,431	144,477	209,908	31.17
1959	..	..	..	..	66,717	147,145	213,862	31.20
1960	..	..	..	..	66,890	150,073	216,963	30.83
1961	..	..	..	..	70,177	155,105	225,282	31.15

18. *Stillbirths.*—Interstate comparisons of the figures and rates in the following tables are affected by the differences in the definitions of stillbirths adopted by the various States, and only the trends in the rates for the States should be compared.

For various reasons, the registration of stillbirths is not as complete as for live births and deaths. Particulars for the Territories and smaller States are more affected on this account than are those for the larger States.

The number of stillbirths recorded in each State and Territory since 1936 is shown in the following table.

#### STILLBIRTHS

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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#### ANNUAL AVERAGES

1936-40	..	1,409	854	(a) (b) 274	234	144	(a)	5	(a)
1941-45	..	1,478	966	(c) 657	324	143	(a)	9	de 3,825
1946-50	..	1,405	949	626	368	274	(a)	12	(e) 3,795
1951-55	..	1,239	849	581	290	271	139	8	3,393
1956-60	..	1,253	839	558	274	235	109	6	3,293

#### ANNUAL TOTALS

1957	..	1,282	894	584	297	273	104	4	17	3,455
1958	..	1,208	826	548	240	225	105	5	14	3,171
1959	..	1,241	799	553	281	225	109	5	18	3,231
1960	..	1,261	850	551	280	226	106	13	22	3,309
1961	..	1,306	885	553	272	240	111	17	19	3,403

(a) Not available.  
Queensland for 1941.

(b) Three years 1938-40.

(c) Excludes Northern Territory.

(d) Four years 1942-45.

(e) Excludes

The incidence of stillbirths in each State and Territory as measured by the rate per 1,000 of all births, both live and still, is as follows.

### PROPORTION OF STILLBIRTHS(a)

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES									
1936-40 ..	28.71	27.43	(b)	c27.49	25.70	28.75	(b)	22.18	(b)
1941-45 ..	25.46	24.79	d26.76	25.17	23.29	25.68	(b)	22.87	ef25.25
1946-50 ..	19.99	19.64	21.87	22.12	20.46	22.26	(b)	16.35	f20.46
1951-55 ..	16.52	15.55	18.41	15.80	16.97	17.54	17.20	17.05	16.57
1956-60 ..	15.49	13.50	16.07	13.55	13.70	12.64	8.57	14.26	14.59

ANNUAL RATES									
1957 ..	15.88	14.57	17.00	14.98	15.87	12.18	6.15	14.77	15.44
1958 ..	14.87	13.30	15.92	11.83	13.27	12.11	7.12	10.86	14.05
1959 ..	15.11	12.67	15.30	13.61	12.98	12.48	6.24	13.04	14.04
1960 ..	15.15	13.10	15.41	13.18	13.18	11.83	16.46	13.71	14.16
1961 ..	14.89	13.25	14.87	12.00	13.86	12.21	18.99	10.84	13.98

(a) Numbers of stillbirths per 1,000 of all births (live and still). (b) Not available.  
 (c) Three years 1938-40. (d) Four years 1942-45. (e) Excludes Queensland for 1941.  
 (f) Excludes Northern Territory.

## § 5. Mortality

1. Number of Deaths.—(i) Year 1962. The following table shows the number of deaths, male and female, registered in each State and Territory during the year. Stillbirths, although registered as both births and deaths in some States, are excluded from the death statistics published herein.

### DEATHS, 1962

Sex	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Males ..	20,633	14,187	7,759	4,546	3,397	1,622	107	127	52,378
Females ..	16,228	11,660	5,423	3,686	2,413	1,248	37	90	40,785
Persons ..	36,861	25,847	13,182	8,232	5,810	2,870	144	217	93,163

(ii) Years 1926 to 1962. A summary of the number of deaths in each State and Territory from 1926 to 1962 is given in the following table. Annual averages for each five-year period from 1861 to 1950 were published in Official Year Book No. 39, page 597.

### DEATHS

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES									
1926-30 ..	22,677	16,698	8,007	5,008	3,617	2,040	71	42	58,160
1931-35 ..	22,591	17,680	8,147	5,063	3,876	2,194	67	35	59,653
1936-40(a) ..	25,735	19,361	9,107	5,540	4,270	2,342	73	54	66,482
1941-45(a) ..	27,807	20,964	9,715	6,303	4,724	2,488	64	71	72,136
1946-50(a) ..	29,552	21,827	10,357	6,507	4,802	2,459	76	103	75,683
1951-55 ..	32,135	22,900	11,187	7,182	5,263	2,576	109	131	81,483
1956-60 ..	34,002	24,254	12,008	7,732	5,523	2,668	117	184	86,488
ANNUAL TOTALS									
1958 ..	32,350	23,625	11,455	7,743	5,554	2,708	106	182	83,723
1959 ..	35,249	25,078	12,349	7,943	5,497	2,780	124	192	89,212
1960 ..	35,030	24,547	12,370	7,804	5,697	2,670	134	212	88,464
1961 ..	35,048	24,500	12,756	7,815	5,729	2,789	128	196	88,961
1962 ..	36,861	25,847	13,182	8,232	5,810	2,870	144	217	93,163

(a) Excludes deaths of defence personnel and of internees and prisoners of war from overseas for the period September, 1939 to June, 1947.

A graph showing the number of deaths in each year from 1870 to 1962 will be found on page 365.

2. **Crude Death Rates.**—The commonest method of measuring the mortality rate is to relate the number of deaths for a given period to the mean population for that period, thus obtaining the crude death rate. This rate for a given period measures the number per thousand of population by which the population is depleted through deaths during that period. Crude death rates for each State and Territory from 1926 to 1962 are shown in the following table.

CRUDE DEATH RATES(a)

Period.	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES									
1926-30 ..	9.26	9.56	9.06	8.83	8.91	9.44	15.83	5.36	9.26
1931-35 ..	8.68	9.72	8.62	8.72	8.83	9.63	13.46	3.81	9.00
1936-40(b) ..	9.45	10.36	9.08	9.33	9.22	9.91	11.69	4.54	9.63
1941-45(b) ..	9.73	10.63	9.24	10.26	9.86	10.21	6.43	4.98	9.96
1946-50(b) ..	9.70	10.37	9.13	9.76	9.23	9.30	6.27	5.31	9.74
1951-55 ..	9.49	9.55	8.71	9.25	8.49	8.48	6.86	4.58	9.25
1956-60 ..	9.20	8.91	8.36	8.62	7.90	7.97	5.32	4.31	8.78

ANNUAL RATES

1958 ..	8.75	8.69	7.98	8.63	7.94	8.07	4.87	4.43	8.50
1959 ..	9.37	9.01	8.43	8.62	7.72	8.14	5.25	4.12	8.87
1960 ..	9.14	8.59	8.30	8.26	7.88	7.70	5.34	4.03	8.61
1961 ..	8.95	8.37	8.42	8.06	7.77	7.89	4.88	3.33	8.47
1962—									
Males ..	10.33	9.43	9.88	9.10	8.84	8.90	6.63	3.69	9.69
Females ..	8.18	7.85	7.19	7.53	6.51	7.04	3.42	2.88	7.69
Persons ..	9.26	8.64	8.56	8.32	7.69	7.99	5.34	3.30	8.70

(a) Number of deaths per 1,000 of mean population.  
from September, 1939 to June, 1947.

(b) Excludes deaths of defence personnel

A graph showing the crude death rate for each year from 1870 to 1962 will be found on page 366.

3. **Standardized Death Rates.**—(i) *General.* The death rates quoted above are crude rates, i.e., they simply show the number of deaths per thousand of mean population without taking into consideration differences in the sex and age composition of the population. Other conditions being equal, however, the crude death rate of a community will be low if it contains a large proportion of young people (not infants), and conversely it will be relatively high if the population includes a large proportion of elderly people. The foregoing table of crude death rates, therefore, does not indicate comparative incidence of mortality either as between States in the same year or in any one State over a period of years. In order to obtain a comparison of mortality rates on a uniform basis as far as sex and age constitution are concerned, "standardized" death rates may be computed. These are computed by selecting a particular distribution of age and sex as a standard, and then calculating what would have been the general death rate if the death rates for each sex and in each age group had been as recorded, but the age and sex distribution had been the same as in the standard population. For the standardized rates which follow, the standard population compiled by the International Institute of Statistics has been used. This standard is based upon the age distribution according to sex of nineteen European countries at their censuses nearest to the year 1900.

An examination of the age distribution of deaths and the resultant age-specific death rates is made in paragraph 7, page 384.

(ii) *Comparison of Crude and Standardized Death Rates.* The relative incidence of mortality as between individual States and as between the years 1921, 1933, 1947, 1954 and 1961 is illustrated in the following statement of crude and "standardized" death rates. These years have been chosen for comparison because the census data give essential information as to sexes and ages of the State populations. Crude death rates are shown to indicate the degree to which they disguise the true position.

#### CRUDE AND STANDARDIZED DEATH RATES

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Crude death rate(a)—							
1921 .. ..	9.50	10.52	9.37	10.02	10.42	10.30	9.91
1933 .. ..	8.58	9.59	8.84	8.44	8.64	9.60	8.92
1947 .. ..	9.53	10.44	9.15	9.61	9.39	9.17	9.69
1954 .. ..	9.46	9.20	8.63	9.01	8.38	8.67	9.10
1961 .. ..	8.95	8.37	8.42	8.06	7.77	7.89	8.47
Standardized death rate(b)—							
1921 .. ..	10.35	10.79	10.24	10.38	11.88	10.83	10.58
1933 .. ..	8.52	8.74	9.10	7.66	8.74	8.86	8.62
1947 .. ..	7.44	7.31	7.47	6.77	7.28	7.21	7.34
1954 .. ..	7.24	6.63	6.80	6.52	6.71	7.02	6.90
1961 .. ..	6.56	6.12	6.26	5.90	6.02	6.19	6.27

(a) Total deaths per 1,000 of mean population, in para. 3 (i) p. 377.

(b) See explanation of standardized death rates

The comparisons above relate to individual years in which a census of population was taken and should not be used as the basis for general conclusions as to changes in incidence of mortality for other than those years.

4. *True Death Rates.*—The main objections to standardized death rates are that the choice of a standard population is arbitrary and that the standardized rates have little value except for comparative purposes, and even then variation of the standard population may make appreciable differences. However, a correct measurement of the mortality of the population can be obtained from life tables. A life table represents the number of survivors at each age from a group of newly-born children who are subject to given mortality conditions, and from such a table the complete expectation of life at birth can be calculated. The reciprocal of this figure is known as the true death rate, since, if the complete expectation of life of a person at birth is 50 years, say, then each person will on the average die 50 years after birth, so that in a stationary population one person in 50 or 20 per thousand will die each year. The true death rate for a given period is unaffected by the particular age distribution of that period and is determined solely by the mortality experience of the period as manifested in the rate of survival from each year of age to the next. The table below sets out complete expectation of life at birth and true death rates for the periods covered by Australian life tables.

#### COMPLETE EXPECTATION OF LIFE AT BIRTH AND TRUE DEATH RATES: AUSTRALIA

Period					Complete expectation of life at birth (years)		True death rate	
					Males	Females	Males(a)	Females(b)
1881-1890 .. ..	..	..	..	..	47.20	50.84	21.19	19.67
1891-1900 .. ..	..	..	..	..	51.06	54.76	19.58	18.26
1901-1910 .. ..	..	..	..	..	55.20	58.84	18.12	17.00
1920-1922 .. ..	..	..	..	..	59.15	63.31	16.91	15.80
1932-1934 .. ..	..	..	..	..	63.48	67.14	15.75	14.89
1946-1948 .. ..	..	..	..	..	66.07	70.63	15.14	14.16
1953-1955 .. ..	..	..	..	..	67.14	72.75	14.89	13.75

(a) Number of deaths per 1,000 males in stationary population.

(b) Number of deaths per 1,000 females in stationary population.

The crude death rates and the true death rates of Australia and the principal countries of the world for the latest available year are shown in the table on pages 397-8 of § 7. International Vital Statistics.

5. *Australian Life Tables.*—(i) *Life Tables prior to 1954.* It has been the practice at each census from 1911 onwards to prepare Life Tables representative of the mortality experience of Australia. The mortality of the Australian population for the thirty years from 1881 to 1910 inclusive was investigated in 1911 by the Commonwealth Statistician. Tables were compiled for each State and for Australia as a whole in respect of each sex for each of the decennial periods 1881-1890, 1891-1900 and 1901-1910. These compilations furnished a comprehensive view of Australian mortality in respect of sex, time, and geographical distribution, and practically superseded all Life Tables prepared in Australia prior to 1911. In addition, monetary tables based on the experience for the whole of Australia for the ten years 1901-1910 were prepared and published.

At the Census of 1921, Life Tables were prepared by the Commonwealth Statistician from the recorded census population and the deaths in the three years 1920 to 1922. In 1933 and 1947, Life Tables based on the census population and the deaths in the years 1932 to 1934 and 1946 to 1948 respectively were compiled by the Commonwealth Actuary.

(ii) *Life Tables of Census of 1954.* On the occasion of the 1954 Census, the seventh Life Tables in the series were compiled by the Commonwealth Actuary. These were based on the population recorded at the Census, adjusted to allow for variation in the net movement into Australia over the years 1953 to 1955, and deaths during these years. Full particulars of the data used, the method of construction and the tabulations of these Life Tables will be found in the report of the Commonwealth Actuary, which was published by the Commonwealth Statistician in 1958. This report also appears in Volume VIII. of the detailed tables of the 1954 Census.

The main features of the tables are set out in the following summary table. Comparisons with earlier Australian tables and with the latest experiences in the United Kingdom and New Zealand are provided in Year Book No. 48, page 338).

LIFE TABLES, 1953-55

Age (x)	Males			Females		
	Rate of mortality ( $q_x$ )	Number of survivors ( $l_x$ )	Complete expectation of life ( ${}^oe_x$ )	Rate of mortality ( $q_x$ )	Number of survivors ( $l_x$ )	Complete expectation of life ( ${}^oe_x$ )
0 .. ..	.02521	100,000	67.14	.01989	100,000	72.75
10 .. ..	.00056	96,488	59.53	.00035	97,228	64.78
20 .. ..	.00186	95,460	50.10	.00064	96,774	55.06
30 .. ..	.00170	93,801	40.90	.00096	96,055	45.43
40 .. ..	.00297	91,861	31.65	.00217	94,715	36.00
50 .. ..	.00819	87,553	22.92	.00530	91,573	27.03
60 .. ..	.02221	76,256	15.47	.01203	84,665	18.78
70 .. ..	.05315	54,054	9.59	.03250	69,613	11.62
80 .. ..	.11958	23,658	5.47	.09314	39,633	6.30

$q_x$  = probability of dying within one year at specified ages.  $l_x$  = number surviving at specified ages out of 100,000 births.  ${}^oe_x$  = complete expectation of life at specified ages.

The following table shows a comparison of the complete expectation of life at selected ages for males and females as calculated from the life tables of 1920-22, 1932-34, 1946-48 and 1953-55.

COMPLETE EXPECTATION OF LIFE ( $^{\circ}e_x$ ) AT SELECTED AGES: AUSTRALIA

Age (x)	Males				Females			
	1920-22	1932-34	1946-48	1953-55	1920-22	1932-34	1946-48	1953-55
0 ..	59.15	63.48	66.07	67.14	63.31	67.14	70.63	72.75
10 ..	56.01	58.02	59.04	59.53	59.20	61.02	63.11	64.78
20 ..	46.99	48.81	49.64	50.10	50.03	51.67	53.47	55.06
30 ..	38.44	39.90	40.40	40.90	41.48	42.77	44.08	45.43
40 ..	30.05	31.11	31.23	31.65	33.14	34.04	34.91	36.00
50 ..	22.20	22.83	22.67	22.92	24.90	25.58	26.14	27.03
60 ..	15.08	15.57	15.36	15.47	17.17	17.74	18.11	18.78
70 ..	9.26	9.60	9.55	9.59	10.41	10.98	11.14	11.62
80 ..	5.00	5.22	5.36	5.47	5.61	6.01	6.02	6.30

6. Infant Deaths and Death Rates.—(i) *States.* (a) *Under One Year.* For each State and Territory, the number of deaths under one year of age and the rates of infant mortality during the period 1926 to 1962 were as follows.

## INFANT MORTALITY: UNDER ONE YEAR

Period.	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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## ANNUAL AVERAGES

1926-30 ..	2,918	1,797	918	517	431	257	5	8	6,851
1931-35 ..	1,885	1,214	690	304	329	202	6	5	4,635
1936-40 ..	1,963	1,139	718	311	352	201	6	5	4,695
1941-45 ..	2,034	1,311	804	413	347	213	7	7	5,136
1946-50 ..	1,990	1,129	770	431	370	187	11	14	4,902
1951-55 ..	1,852	1,113	730	407	384	184	17	14	4,701
1956-60 ..	1,770	1,205	717	410	362	176	25	18	4,683

## ANNUAL TOTALS

1958 ..	1,704	1,178	657	449	360	167	22	23	4,560
1959 ..	1,832	1,320	721	422	345	202	31	16	4,889
1960 ..	1,735	1,182	740	397	366	169	26	28	4,643
1961 ..	1,800	1,173	733	448	336	151	21	27	4,689
1962 ..	1,825	1,219	754	409	380	184	37	32	4,840

## AVERAGE ANNUAL RATES(a)

1926-30 ..	54.74	52.34	47.41	46.95	49.27	53.37	66.09	71.31	51.99
1931-35 ..	41.92	42.76	39.46	35.12	40.81	44.47	80.60	34.48	41.27
1936-40 ..	41.18	37.63	36.75	33.08	39.70	41.23	44.80	21.78	38.81
1941-45 ..	35.95	34.50	34.30	32.95	33.30	39.31	61.73	18.72	34.97
1946-50 ..	28.91	23.82	27.49	26.50	28.15	26.53	37.37	19.89	26.98
1951-55 ..	25.11	20.70	23.58	22.55	24.41	23.67	36.28	15.40	23.34
1956-60 ..	22.24	19.67	20.99	20.50	21.42	20.62	36.00	13.68	21.05

## ANNUAL RATES(a)

1958 ..	21.29	19.23	19.40	22.40	21.52	19.49	31.56	18.04	20.49
1959 ..	22.65	21.21	20.25	20.71	20.16	23.42	38.94	11.75	21.54
1960 ..	21.16	18.46	21.01	18.94	21.62	19.09	33.46	17.69	20.16
1961 ..	20.84	17.80	20.01	20.00	19.67	16.81	23.92	15.57	19.54
1962 ..	21.36	18.50	21.13	19.15	22.27	20.69	40.04	17.59	20.41

(a) Number of deaths of children aged under one year per 1,000 live births registered.

Compared with other countries, Australia occupies a favourable position in respect of infant mortality. In 1961, only a few countries recorded a lower rate than Australia. Rates for Australia and the principal countries of the world for the latest available year are shown in the tables on pages 397-8 of § 7. International Vital Statistics.

(b) *Under Four Weeks.* The following table shows infant mortality rates under four weeks of age in each State and Territory during the period 1926 to 1961.

#### INFANT MORTALITY RATES(a): UNDER FOUR WEEKS

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES									
1926-30 ..	29.63	29.75	27.66	26.84	25.10	33.12	14.37	28.86	28.96
1931-35 ..	27.62	27.78	27.91	22.99	25.11	30.09	35.26	23.45	27.27
1936-40 ..	27.63	25.94	26.15	21.62	22.62	29.56	28.80	16.33	26.19
1941-45 ..	24.52	24.40	24.41	20.86	20.60	27.24	33.57	12.54	23.97
1946-50 ..	20.53	17.55	19.95	18.38	19.53	19.34	21.45	15.80	19.34
1951-55 ..	17.34	15.18	17.09	14.95	17.27	16.34	19.63	11.28	16.45
1956-60 ..	16.04	14.50	15.15	13.67	15.01	13.29	24.19	9.64	15.07

#### ANNUAL RATES

1957 ..	16.39	15.02	15.22	13.77	15.13	13.63	18.58	7.06	15.36
1958 ..	15.30	14.48	13.76	13.72	14.35	12.37	17.22	11.76	14.50
1959 ..	16.37	15.22	14.61	14.03	13.79	14.84	27.63	8.81	15.31
1960 ..	15.25	15.84	13.70	13.26	15.89	11.18	27.03	12.00	14.64
1961 ..	14.86	13.46	14.80	12.99	12.76	11.91	14.81	10.96	14.01

(a) Number of deaths of children aged under four weeks per 1,000 live births registered.

(c) *Four Weeks and under One Year.* Infant mortality rates for children aged four weeks and under one year are shown in the following table for the period 1926 to 1961.

#### INFANT MORTALITY RATES(a): FOUR WEEKS AND UNDER ONE YEAR

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES									
1926-30 ..	25.11	22.59	19.75	20.11	24.17	20.25	51.72	42.45	23.03
1931-35 ..	14.30	14.98	11.55	12.13	15.70	14.38	45.34	11.03	14.00
1936-40 ..	13.55	11.69	10.60	11.46	17.08	11.67	16.00	5.45	12.62
1941-45 ..	11.77	10.33	10.14	12.34	12.77	12.30	22.40	6.21	11.27
1946-50 ..	8.38	6.27	7.54	8.12	8.62	7.19	15.92	4.09	7.64
1951-55 ..	7.77	5.52	6.49	7.60	7.14	7.33	16.65	4.12	6.89
1956-60 ..	6.19	5.17	5.85	6.84	6.41	7.33	11.81	4.04	5.98

#### ANNUAL RATES

1957 ..	6.31	5.14	6.46	6.86	5.96	6.52	15.48	1.76	6.05
1958 ..	5.99	4.75	5.64	6.68	7.17	7.12	14.34	6.28	5.99
1959 ..	6.28	5.99	5.64	6.68	6.37	8.58	11.31	2.94	6.23
1960 ..	5.91	4.76	5.17	5.68	5.73	7.91	6.43	5.69	5.52
1961 ..	5.98	4.34	5.21	7.01	6.91	4.90	9.11	4.61	5.53

(a) Number of deaths of children aged four weeks and under one year per 1,000 live births registered.

(ii) *Australia. (a) Under One Year.* The fact that out of 584,962 male infants born from 1957 to 1961, 13,417 (22.94 per 1,000) died during the first year of life, while of 555,188 female infants only 10,081 (18.16 per 1,000) died during the first year, accords with the universal experience that during the first few years of life the higher death rate of male infants tends to counteract the excess of male births. Stillbirths, for which masculinity is also higher, are not included in any of the tables relating to deaths.



As shown by the following table, the disparity is greater during the first four weeks of life, termed the neonatal period, than during the remainder of the first year of life, or the post-neonatal period.

### INFANT DEATHS AND MORTALITY RATES: AUSTRALIA

Period	Number of deaths						Rates(a)					
	Neonatal— under four weeks		Post- neonatal— four weeks and under one year		Total under one year		Neonatal— under four weeks		Post- neonatal— four weeks and under one year		Total under one year	
	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males
ANNUAL AVERAGES						AVERAGE ANNUAL RATES						
1926-30 ..	2,203	1,612	1,706	1,330	3,909	2,942	32.50	25.20	25.16	20.79	57.66	45.99
1931-35 ..	1,763	1,299	886	687	2,649	1,986	30.62	23.73	15.38	12.55	46.00	36.28
1936-40 ..	1,816	1,353	863	663	2,679	2,016	29.30	22.93	13.93	11.23	43.23	34.16
1941-45 ..	2,007	1,495	914	720	2,921	2,215	26.66	20.88	12.14	10.05	38.80	30.93
1946-50 ..	2,024	1,490	784	604	2,808	2,094	21.68	16.86	8.40	6.84	30.08	23.70
1951-55 ..	1,907	1,406	776	612	2,683	2,018	18.47	14.32	7.52	6.24	25.99	20.56
1956-60 ..	1,921	1,432	741	589	2,662	2,021	16.81	13.24	6.48	5.45	23.29	18.69
ANNUAL TOTALS						ANNUAL RATES						
1957 ..	1,953	1,431	740	593	2,693	2,024	17.25	13.36	6.53	5.53	23.78	18.89
1958 ..	1,822	1,404	767	567	2,589	1,971	15.99	12.93	6.73	5.23	22.72	18.16
1959 ..	2,017	1,458	777	637	2,794	2,095	17.35	13.17	6.69	5.75	24.04	18.92
1960 ..	1,934	1,437	717	555	2,651	1,992	16.33	12.84	6.06	4.96	22.39	17.80
1961 ..	1,951	1,410	739	589	2,690	1,999	15.85	12.06	6.00	5.04	21.85	17.10

(a) Number of deaths per 1,000 male or female live births registered.

(b) *Under Four Weeks.* The following table shows particulars of infant deaths in the first four weeks of life, or the neonatal period, from 1931 to 1961. It will be seen that, for both males and females, the risk of death is very much greater during the first day of life than subsequently.

### INFANT DEATHS AND MORTALITY RATES—UNDER FOUR WEEKS: AUSTRALIA

Period	Number of deaths						Rates(a)					
	Early neonatal			Late neonatal— one week and under four weeks			Early neonatal			Late neonatal— one week and under four weeks		
	Under one day		One day and under one week				Under one day		One day and under one week			
	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males
ANNUAL AVERAGES						AVERAGE ANNUAL RATES						
1931-35 ..	1,007	711	1,442	1,060	321	233	10.1	7.1	25.04	19.48	5.58	4.25
1936-40 ..	986	731	1,496	1,120	320	233	10.56	8.28	24.13	18.99	5.17	3.94
1941-45 ..	906	674	728	541	373	280	12.03	9.42	9.67	7.55	4.96	3.91
1946-50 ..	986	731	758	539	280	220	10.56	8.28	8.12	6.09	3.00	2.49
1951-55 ..	918	713	742	508	247	185	8.88	7.26	7.19	5.17	2.40	1.89
1956-60 ..	977	765	705	490	244	177	8.51	7.07	6.17	4.53	2.13	1.64
ANNUAL TOTALS						ANNUAL RATES						
1957 ..	1,007	711	671	472	247	164	9.19	7.42	5.98	4.41	2.18	1.53
1958 ..	927	737	659	486	236	181	8.14	6.79	5.78	4.48	2.07	1.66
1959 ..	1,003	784	762	497	252	177	8.63	7.08	6.55	4.49	2.17	1.60
1960 ..	967	755	715	516	252	166	8.17	6.75	6.04	4.61	2.13	1.48
1961 ..	976	744	739	490	236	176	7.93	6.36	6.00	4.19	1.92	1.51

(a) Number of deaths per 1,000 male or female live births registered. (b) Not available.  
(c) Includes under one day.

Graphs showing infant deaths and infant mortality rates for each year from 1910 to 1962 will be found on pages 367 and 368 respectively.

(iii) *Causes of death—Children under One Year.* (a) *Numbers.* Causes of death of children under one year of age should be considered in relation to age at death, because the emphasis on various causes changes rapidly as age at death varies.

A summary for 1961 of deaths of children under one year of age, classified according to principal causes of death and age at death, is given in the following table.

# CAUSES OF DEATH: CHILDREN UNDER ONE YEAR OF AGE, AUSTRALIA, 1961

International Statistical Classification number	Cause of death	Age at death										Total under one year
		Days		Total under one week	Weeks			Months				
		Under 1	1-6		1	2	3	1-2 (a)	3-5	6-8	9-11	
	Causes mainly of pre-natal and natal origin—											
750-759	Congenital malformations ..	179	191	370	88	53	31	157	126	53	35	913
760, 761	Birth injury ..	346	271	617	22	7	2	1	..	1	..	650
762	Post-natal asphyxia and atelectasis ..	323	188	511	9	3	2	6	5	..	1	537
769	Attributed to maternal toxæmia ..	46	31	77	1	1	1	4	..	1	..	84
770	Erythroblastosis ..	88	37	125	3	1	..	2	..	1	..	132
771	Haemorrhagic disease of the newborn ..	11	51	62	4	1	..	..	..	..	..	67
773	Ill-defined diseases of early infancy ..	82	78	160	10	..	1	6	2	3	..	182
774-776	Immaturity alone, or primary to diseases other than of early infancy ..	597	270	867	22	9	..	12	1	..	..	911
	<i>Total</i> .. ..	1,672	1,117	2,789	159	75	37	188	134	58	36	3,476
	Causes mainly of post-natal origin—											
571, 764	Gastro-enteritis (including diarrhoea of newborn) ..	..	2	2	6	2	..	25	35	22	15	107
(b)	Pneumonia and bronchitis ..	17	57	74	19	22	28	127	122	73	46	511
(c)	Septicæmia, skin and subcutaneous tissue infections, sepsis of newborn ..	2	9	11	4	6	3	15	9	4	2	54
057, 340	Meningococcal infections and non-meningococcal meningitis ..	..	8	8	2	..	2	21	14	13	6	66
(d)	Causes classified as infective or mainly infective in origin not specified above ..	..	3	3	3	..	..	22	19	13	11	71
E921-E925	Accidental mechanical suffocation from vomit, food, foreign body or in cot ..	2	..	2	2	..	1	31	27	17	4	84
E926, E980-E985	Lack of care, neglect, infanticide ..	1	..	1	..	1	..	..	..	..	..	2
(e)	Other accidents, poisonings and violence ..	1	..	1	..	..	..	6	15	10	20	52
	<i>Total</i> .. ..	23	79	102	36	31	34	247	241	152	104	947
140-239	Neoplasms ..	..	2	2	1	1	..	1	3	6	7	21
Residual	Other causes remaining ..	25	31	56	16	14	8	35	49	40	27	245
	<i>All Causes</i> .. ..	1,720	1,229	2,949	212	121	79	471	427	256	174	4,689

(a) Age four weeks and under three months. (b) 490-493, 500-502, 763. (c) 053, 690-698, 765-768. (d) 001-052, 054-056, 058-138, 391-393, 470-483, 518, 519. (e) E800-E920, E927-E979, E990-E999.

(b) *Proportions.* The following table summarizes the detail contained in the previous table, and, in addition, shows the proportions of deaths from the various causes in each of the periods—under one week, one week and under one month, one month and under one year, and total under one year.

**CAUSES OF DEATH: CHILDREN UNDER ONE YEAR OF AGE—NUMBERS AND PROPORTIONS, AUSTRALIA, 1961**

Inter-national Statistical Classi- fication number	Cause of death	Age at death						Total under one year	
		Under one week		One week and under one month		One month and under one year			
		Num- ber	Per- cent.	Num- ber	Per- cent.	Num- ber	Per- cent.	Num- ber	Per- cent.
	Causes mainly of pre-natal and natal origin—								
750-759	Congenital malformations ..	370	12.6	172	41.8	371	27.9	913	19.4
760, 761	Birth injury ..	617	20.9	31	7.5	2	0.2	650	13.9
762	Post-natal asphyxia and atelectasis ..	511	17.3	14	3.4	12	0.9	537	11.5
769	Attributed to .. maternal toxæmia ..	77	2.6	3	0.7	4	0.3	84	1.8
770	Erythroblastosis ..	125	4.3	4	1.0	3	0.2	132	2.8
771	Haemorrhagic disease of the newborn ..	62	2.1	5	1.2	..	..	67	1.4
773	Ill-defined diseases of early infancy ..	160	5.4	11	2.7	11	0.8	182	3.9
774-776	Immaturity alone, or primary to diseases other than of early infancy ..	867	29.4	31	7.5	13	1.0	911	19.4
	<i>Total</i> .. ..	2,789	94.6	271	65.8	416	31.3	3,476	74.1
	Causes mainly of post-natal origin—								
571, 764	Gastro-enteritis (including diarrhoea of newborn) ..	2	..	8	1.9	97	7.3	107	2.3
(a)	Pneumonia and bronchitis ..	74	2.5	69	16.8	368	27.7	511	10.9
	Other .. ..	26	0.9	24	5.8	279	21.0	329	7.0
	<i>Total</i> .. ..	102	3.4	101	24.5	744	56.0	947	20.2
140-239, residual	Neoplasms and other causes remaining .. ..	58	2.0	40	9.7	168	12.7	266	5.7
	<i>All Causes</i> .. ..	2,949 (62.9 %)	100.0	412 (8.8 %)	100.0	1,328 (28.3 %)	100.0	4,689 (100.0 %)	100.0

(a) 490-493, 500-502, 763.

7. *Age Distribution.*—(i) *Number of Deaths.* Age at death is recorded for statistical purposes in days for the first week of life, in weeks for the first four weeks, in months for the first year and in completed years of life thereafter. These ages are usually combined in groups for publication, the most common being weeks for the first four weeks, months or groups of months for the first year, single years of age of the first five years and thereafter the five-year groups 5-9 years, 10-14 years, etc. A summary in this form for the year 1961 is given for Australia in the following table.

## AGE AT DEATH: AUSTRALIA, 1961

Age at death	Males	Females	Persons	Age at death	Males	Females	Persons
Under 1 week ..	1,715	1,234	2,949	5-9 years ..	260	192	452
1 week and under 2 weeks ..	129	83	212	10-14 ..	273	150	423
2 weeks and under 3 weeks ..	66	55	121	15-19 ..	511	184	695
3 weeks and under 4 weeks ..	41	38	79	20-24 ..	578	205	783
				25-29 ..	498	232	730
				30-34 ..	652	323	975
Total under 4 weeks ..	1,951	1,410	3,361	35-39 ..	902	542	1,444
				40-44 ..	1,305	698	2,003
				45-49 ..	1,974	1,123	3,097
4 weeks and under 3 months	272	199	471	50-54 ..	2,899	1,476	4,375
3 months and under 6 months	236	191	427	55-59 ..	3,838	1,782	5,620
6 months and under 12 months	231	199	430	60-64 ..	4,977	2,707	7,684
				65-69 ..	6,146	4,042	10,188
				70-74 ..	7,315	5,386	12,701
Total under 1 year ..	2,690	1,999	4,689	75-79 ..	6,425	6,001	12,426
				80-84 ..	4,690	5,479	10,169
				85-89 ..	2,595	3,685	6,280
				90-94 ..	957	1,619	2,576
1 year ..	223	169	392	95-99 ..	184	412	596
2 years ..	130	105	235	100 years and over	20	51	71
3 ..	101	72	173	Age not stated ..	16	5	21
4 ..	89	74	163				
Total under 5 years ..	3,233	2,419	5,652	Total, All Ages ..	50,248	38,713	88,961

There are different mortality rates at various stages of life, and the actual number of deaths in any period is related to the numbers living at the respective stages. Changes in the number of deaths from one period to another are associated with changes in the rate of mortality in the various age groups and by the changed proportions of persons living in the different groups.

The combined effect of various influences, i.e. the steady decline in the rate of mortality, the long-term decline in the birth-rate, and the effects of past and present migration on the age distribution of the population, is shown in the following table, which shows the proportion of deaths in various age groups in ten-year periods from 1901 to 1960 and for the year 1961.

## PROPORTION OF DEATHS IN EACH AGE GROUP: AUSTRALIA

(Per cent.)

Period	Age at death (years)								Total
	Under 1	1-4	5-19	20-39	40-59	60-64	65 and over	Unspecified	
1901-10 ..	20.51	6.45	6.37	14.99	17.99	5.31	28.26	0.12	100.00
1911-20 ..	16.66	6.09	5.49	14.44	20.32	6.19	30.68	0.13	100.00
1921-30 ..	13.10	4.51	4.85	12.12	20.55	8.26	36.53	0.08	100.00
1931-40 ..	7.40	2.56	3.83	9.36	20.54	8.36	47.92	0.03	100.00
1941-50 ..	6.79	1.71	2.26	6.01	19.04	9.33	54.84	0.02	100.00
1951-60 ..	5.59	1.33	1.80	4.90	17.27	9.18	59.90	0.03	100.00
1961—									
Males ..	5.35	1.08	2.08	5.23	19.93	9.91	56.39	0.03	100.00
Females ..	5.16	1.09	1.36	3.36	13.12	6.99	68.91	0.01	100.00
Persons ..	5.27	1.08	1.77	4.42	16.97	8.64	61.83	0.02	100.00

A table showing these proportions for males and females separately for the period 1901 to 1950 was published in Official Year Book No. 39, page 614.

(ii) *Age-specific Death Rates.* In previous issues of the Official Year Book, average annual age-specific death rates were given for each State and Australia for the periods 1932-34, 1946-48 and 1953-55 (see Official Year Books, Nos. 37, p. 778, No. 39, pp. 615-6 and No. 44, pp. 640-1). These rates were based on the age distribution of the population at the relevant censuses.

Intercensal estimates of the age distribution of the population are available for Australia and for the larger States. The following table shows age-specific death rates for Australia for the years 1959, 1960 and 1961.

#### AGE-SPECIFIC DEATH RATES(a): AUSTRALIA

Age group (years)	1959	1960	1961	Age group (years)	1959	1960	1961
0-4 ..	5.51	5.16	5.09	50-54 ..	7.75	7.74	7.70
5-9 ..	0.50	0.49	0.43	55-59 ..	12.85	12.48	12.13
10-14 ..	0.40	0.41	0.41	60-64 ..	20.16	19.81	19.17
15-19 ..	0.97	0.92	0.86	65-69 ..	31.97	31.57	30.52
20-24 ..	1.14	1.09	1.12	70-74 ..	50.33	47.77	47.93
25-29 ..	1.09	1.12	1.11	75-79 ..	81.49	77.90	75.34
30-34 ..	1.46	1.36	1.32	80-84 ..	127.63	120.55	118.66
35-39 ..	2.03	1.86	1.88	85-89 ..	216.44	218.62	184.99
40-44 ..	2.98	3.04	2.95	90 and over ..	362.86	335.26	298.15
45-49 ..	5.02	4.85	4.71				

(a) Average number of deaths per 1,000 of mid-year population in each age group.

8. *Causes of Death.*—The classification of causes of death adopted for Australia by the Commonwealth Bureau of Census and Statistics at the inception of its mortality statistics in 1907 was that introduced by the International Institute of Statistics in 1893, reviewed by that Institute in 1899, and revised by an International Commission in 1900. This classification became known as the International List of Causes of Death, and further international revisions in 1909 (Second), 1920 (Third), 1929 (Fourth), 1938 (Fifth), 1948 (Sixth), and 1955 (Seventh), were successively adapted for use in Australian statistics.

The Sixth Revision of the International Statistical Classification of Diseases, Injuries and Causes of Death was used in Australia for deaths registered in 1950 to 1957. The Seventh Revision has been used for deaths registered in 1958 and subsequent years. The Sixth Revision, for the first time in connexion with the International Classification, laid down rules for a uniform method of selecting the main cause to be tabulated if more than one cause is stated on the death certificate. These rules were maintained in the Seventh Revision, which was concerned mainly with certain essential changes and amendment of errors and inconsistencies in the previous classification. Prior to 1950, the rules adopted in Australia for the selection of the cause of death to be tabulated were those laid down in the United States Manual of Joint Causes of Death, first published in 1914 and revised to conform to successive revisions of the International List.

The adoption of the new method introduced with the Sixth Revision and maintained in the Seventh marked a fundamental change in Australian cause of death statistics, emphasis now being placed on the underlying cause of death as indicated by the certifying practitioner. This change in principle affects the comparability of the statistics for 1950 and subsequent years with those for earlier years. A complete detailed classification of causes of death for Australia for 1950 according to both the Fifth and Sixth Revisions was shown in *Demography*, Bulletin No. 68, 1950.

In order to facilitate the concise presentation of cause of death statistics, the present International Classification provides two special lists of causes for tabulation—the Intermediate List of 150 causes and the Abbreviated List of 50 causes. The latter has been used as the base of the cause of death tabulations A to C which follow. Some categories have been sub-divided to show additional particulars of interest in Australian statistics. Tables A and B show deaths of males and females, respectively, in age groups for 1961 and Table C shows the total numbers of males and females who died, the death rates per million of mean population, and the percentage of total deaths for 1961.

## A.—CAUSES OF DEATH: MALES, 1961

## ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST)

Cause of death (a)	Detailed list numbers	Age groups (years)										Total
		0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65 and over		
B 1 Tuberculosis of respiratory system ..	001-008	..	2	..	2	3	18	53	66	169	313	
B 2 Tuberculosis, other forms ..	010-019	..	2	1	..	2	2	5	4	6	22	
B 3 Syphilis and its sequelae ..	020-029	1	..	..	..	..	2	5	13	36	57	
B 4 Typhoid fever ..	040	..	..	..	..	..	1	..	..	..	1	
B 6 Dysentery, all forms ..	045-048	1	..	2	..	..	1	..	..	2	6	
B 7 Scarlet fever and streptococcal sore throat ..	050, 051	1	..	..	..	..	..	1	..	..	2	
B 8 Diphtheria ..	055	..	1	..	1	..	..	..	..	..	1	
B 9 Whooping cough ..	056	1	..	..	..	..	..	..	..	..	2	
B10 Meningococcal infections ..	057	10	6	3	..	..	1	..	1	..	21	
B12 Acute poliomyelitis ..	080	..	1	..	2	8	2	..	..	..	13	
B14 Measles ..	085	2	15	1	1	..	..	..	1	..	20	
B17 All other diseases classified as infective and parasitic ..	(b)	29	22	14	12	7	11	26	9	45	175	
Malignant neoplasms of:												
Digestive organs and peritoneum ..	150-159	2	2	1	..	22	92	283	602	1,701	2,705	
Lung ..	162, 163	..	..	..	..	8	41	229	559	785	1,622	
Breast ..	170	..	..	..	..	..	..	..	1	6	7	
B18 { Genital Organs ..	171-179	..	2	1	2	20	17	18	88	716	864	
Urinary organs ..	180, 181	3	3	..	2	5	14	47	105	268	447	
Leukaemia and aleuk- aemia ..	204	4	21	30	21	9	29	35	44	147	340	
Other malignant and lymphatic neoplasms ..	(c)	4	24	33	36	55	116	211	300	616	1,395	
B19 Benign neoplasms and neo- plasms of unspecified nature ..	210-239	3	3	3	..	10	7	17	10	31	84	
B20 Diabetes mellitus ..	260	..	1	..	1	4	15	31	109	336	497	
B21 Anaemias ..	290-293	..	4	5	3	..	4	2	18	74	110	
B22 Vascular lesions affecting central nervous system ..	330-334	5	4	11	8	46	134	347	787	d 3,863	5,205	
B23 Non-meningococcal men- ingitis ..	340	27	14	6	2	3	..	4	11	4	71	
B24 Rheumatic fever ..	400-402	1	..	3	6	2	3	2	..	2	19	
B25 Chronic rheumatic heart disease ..	410-416	..	..	5	12	17	44	59	81	128	346	
B26 { Arteriosclerotic heart disease ..	420	..	..	..	2	50	435	1,713	3,375	e 8,409	13,984	
Degenerative heart disease ..	421, 422	2	1	2	6	17	45	133	249	2,004	2,459	
B27 Other diseases of heart ..	430-434	4	12	3	6	15	31	63	187	d 1,147	1,468	
B28 Hypertension with heart disease ..	440-443	..	..	..	1	..	9	51	97	d 481	639	
B29 Hypertension without men- tion of heart ..	444-447	..	..	..	2	5	20	73	77	230	407	
B30 Influenza ..	480-483	4	3	..	2	..	5	3	12	24	53	
B31 Pneumonia ..	490-493	180	56	21	16	15	42	81	151	1,011	1,573	
B32 Bronchitis ..	500-502	23	11	4	1	5	10	57	222	986	1,319	
B33 Ulcer of stomach and duo- denum ..	540, 541	..	..	..	2	5	37	70	104	262	480	
B34 Appendicitis ..	550-553	..	5	5	9	4	3	13	16	30	85	
B35 Intestinal obstruction and hernia ..	560, 561, 570	33	2	1	3	2	6	17	44	145	253	

For footnotes see following page.

A.—CAUSES OF DEATH: MALES, 1961—*continued*ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST)—*continued*

Cause of death(a)	Detailed list numbers	Age groups (years)										Total
		0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65 and over		
B36 Gastritis, duodenitis, enteritis, and colitis, except diarrhoea of the newborn	543, 571, 572	59	20	3	3	10	9	11	24	71	210	
B37 Cirrhosis of liver ..	581	1	..	..	..	6	26	86	89 (d)	92	300	
B38 Nephritis and nephrosis ..	590-594	3	5	5	18	27	54	81	122	242	557	
B39 Hyperplasia of prostate ..	610	..	..	..	..	..	..	5	23	437	465	
B41 Congenital malformations	750-759	505	58	40	20	8	20	14	15	14	694	
B42 Birth injuries, postnatal asphyxia and atelectasis	760-762	700	1	..	..	..	..	..	..	..	701	
B43 Infections of the new-born	763-768	108	..	..	..	..	..	..	..	..	108	
B44 Other diseases peculiar to early infancy, and immaturity unqualified ..	769-776	793	..	..	..	..	..	..	..	..	793	
B45 Senility without mention of psychosis, ill-defined and unknown causes ..	780-795	7	2	1	6	7	13	14	14 (d)	325	389	
General arteriosclerosis	450	..	..	..	..	..	2	3	59	980	1,044	
Other diseases of circulatory system ..	451-468	..	1	1	2	4	20	37	86	334	485	
Other diseases of respiratory system ..	470-475, 510-527	23	15	11	9	8	19	33	126	333	577	
All other diseases ..	Residual	73	48	54	65	48	130	208	343	1,040	2,009	
BE47 Motor vehicle accidents	E810-E835	8	43	115	495	305	264	245	198 (f)	299	1,972	
BE48 All other accidents	E800-E802, E840-E962	70	132	142	230	247	239	253	204 (f)	368	1,885	
BE49 Suicide and self-inflicted injury ..	E963, E970-E979	..	..	1	69	122	189	225	159 (f)	136	901	
BE50 Homicide and operations of war ..	E964, E965, E980-E999	..	2	4	12	19	25	9	10	13	94	
All Causes ..	..	2,690	543	53	1,089	1,150	2,207	4,873	8,815	28,348 (g)	50,248	

(a) No male deaths were recorded in the following categories in 1961: B5, Cholera (043); B11, Plague (058); B13, Smallpox (084); B15, Typhus and other rickettsial diseases (100-108); B16, Malaria (110-117). (b) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138. (c) All causes, 140-205, not mentioned above. (d) Includes 1, age "not stated". (e) Includes 2, age "not stated". (f) Includes 3, age "not stated". (g) Includes 16, age "not stated".

## B.—CAUSES OF DEATH: FEMALES, 1961

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST)

Cause of death(a)	Detailed list numbers	Age groups (years)										Total]
		0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65 and over		
B 1 Tuberculosis of respiratory system	001-008	..	1	..	..	3	13	21	14	47	99	
B 2 Tuberculosis, other forms	010-019	..	..	..	..	..	4	4	2	3	13	
B 3 Syphilis and its sequelae ..	020-029	..	..	..	..	..	1	1	6	21	29	
B 6 Dysentery, all forms	045-048	..	3	..	1	..	1	..	..	1	6	
B 7 Scarlet fever and streptococcal sore throat	050, 051	..	1	1	..	..	..	..	..	..	2	
B 8 Diphtheria ..	055	..	3	1	..	..	..	..	..	..	4	
B10 Meningococcal infections	057	8	5	..	..	..	..	..	3	1	17	
B12 Acute poliomyelitis ..	080	..	1	2	3	1	1	..	..	..	8	
B14 Measles ..	085	1	5	2	1	..	1	..	..	..	10	
B17 All other diseases classified as infective and parasitic	(b)	23	13	11	8	14	14	16	16	29	144	

For footnotes see following page.

**B.—CAUSES OF DEATH: FEMALES, 1961—continued**  
**ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE**  
**INTERNATIONAL LIST)—continued**

Cause of death(a)	Detailed list numbers	Age groups (years)									Total
		0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65 and over	
B18 Malignant neoplasms of—											
Digestive organs and peritoneum ..	150-159	1	1	1	3	15	73	215	371	d 1,779	2,459
Lung ..	162, 163	..	..	..	..	23	14	35	65	113	227
Breast ..	170	..	..	..	3	23	116	252	275	575	1,244
Genital organs ..	171-179	..	1	1	2	22	100	176	243	450	995
Urinary organs ..	180, 181	..	6	4	1	..	5	12	32	130	190
Leukaemia and aleuk- aemia ..	204	2	26	36	12	13	13	22	35	102	261
Other malignant and lymphatic neoplasms ..	(c)	1	9	25	29	42	79	135	186	427	933
B19 Benign neoplasms and neo- plasms of unspecified nature ..	210-239	1	1	6	2	10	8	26	25	39	118
B20 Diabetes mellitus ..	260	1	1	3	1	6	7	23	100	649	791
B21 Anaemias ..	290-293	..	2	6	1	4	5	11	15	120	164
B22 Vascular lesions affecting central nervous system ..	330-334	1	4	11	7	33	111	389	693	d 5,510	6,759
B23 Non-meningococcal men- ingitis ..	340	21	8	1	1	..	2	3	5	7	48
B24 Rheumatic fever ..	400-402	..	1	3	3	4	5	1	2	..	19
B25 Chronic rheumatic heart disease ..	410-416	..	..	1	7	14	30	68	75	162	357
B26 Arteriosclerotic heart disease ..	420	..	..	..	1	5	74	358	1,086	6,246	7,770
Degenerative heart dis- ease ..	421, 422	2	..	1	10	9	25	45	112	2,446	2,650
B27 Other diseases of heart ..	430-434	7	3	3	9	8	23	36	85	1,165	1,339
B28 Hypertension with heart disease ..	440-443	..	..	..	1	2	8	43	90	739	883
B29 Hypertension without men- tion of heart ..	444-447	..	..	..	2	3	14	30	43	346	438
B30 Influenza ..	480-483	2	1	..	2	1	..	4	5	32	47
B31 Pneumonia ..	490-493	155	54	19	5	11	19	25	76	887	1,251
B32 Bronchitis ..	500-502	13	3	3	4	2	2	11	24	151	213
B33 Ulcer of stomach and duo- denum ..	540, 541	..	..	1	1	1	8	29	13	119	172
B34 Appendicitis ..	550-553	..	1	5	3	2	2	1	5	17	36
B35 Intestinal obstruction and hernia ..	560, 561, 570	22	2	1	5	5	7	13	22	154	231
B36 Gastritis, duodenitis, en- teritis and colitis, except diarrhoea of the newborn ..	543, 571, 572	40	15	3	1	3	8	9	10	128	217
B37 Cirrhosis of liver ..	581	..	1	2	1	2	16	36	44	67	169
B38 Nephritis and nephrosis ..	590-594	..	2	3	6	20	41	74	87	208	441
B40 Complications of preg- nancy, childbirth and the puerperium ..	{ 640-652, 670-689 }	..	..	..	28	53	27	..	..	..	108
B41 Congenital malformations	750-759	408	47	29	14	8	11	26	6	18	567
B42 Birth injuries, post-natal asphyxia and atelectasis ..	760-762	487	..	..	..	..	..	..	..	..	487
B43 Infections of the new born	763-768	66	..	..	..	..	..	..	..	..	66
B44 Other diseases peculiar to early infancy, and immat- urity unqualified ..	769-776	598	..	..	..	..	..	..	..	..	598
B45 Senility without mention of psychosis, ill-defined and unknown causes ..	780-795	4	5	1	2	6	5	8	6	493	530
General arteriosclerosis	450	..	..	..	..	..	..	5	22	1,099	1,126
B46 tory system ..	451-468	1	2	1	4	9	11	23	46	206	303
Other diseases of respira- tory system ..	{ 470-475, 510-527 }	21	11	4	3	4	13	16	20	157	249
All other diseases ..	Residual	53	38	35	37	70	151	202	302	d 1,049	1,937
BE47 Motor vehicle accidents ..	E810-E835	12	53	54	102	36	46	66	68	182	619
BE48 All other accidents ..	E800-E802, E840-E962	47	85	55	32	21	46	53	76	(d) 546	961
BE49 Suicide and self-inflicted injury ..	E963, E970- E979	..	..	..	23	57	69	69	75	(d) 55	348
BE50 Homicide and opera- tions of war ..	E964, E965, E980-E999	1	5	7	8	13	11	7	3	5	60
All Causes ..	..	1,999	420	342	389	555	1,240	2,599	4,489	e 26,680	38,713

(a) No female deaths were recorded in the following categories in 1961: B4, Typhoid fever (040); B5, Cholera (043); B9, Whooping cough (056); B11, Plague (058); B13, Smallpox (084); B15, Typhus and other rickettsial diseases (100-108); B16, Malaria (110-117). (b) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138. (c) All causes, 140-205, not shown above. (d) Includes 1, age "not stated". (e) Includes 5, age "not stated".



**C.—CAUSES OF DEATH: AUSTRALIA, 1961**  
**ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE**  
**INTERNATIONAL LIST)**

Cause of death	Detailed list numbers	Number of deaths			Rate per 1,000,000 of mean population	Percentage of total deaths
		Males	Females	Persons		
B 1 Tuberculosis of respiratory system ..	001-008	313	99	412	39	0.46
B 2 Tuberculosis, other forms ..	010-019	22	13	35	3	0.04
B 3 Syphilis and its sequelae ..	020-029	57	29	86	8	0.10
B 4 Typhoid fever ..	040	1	..	1	..	0.00
B 5 Cholera ..	043	..	..	..	..	..
B 6 Dysentery, all forms ..	045-048	6	6	12	1	0.01
B 7 Scarlet fever and streptococcal sore throat ..	050-051	2	2	4	..	0.00
B 8 Diphtheria ..	055	1	4	5	..	0.01
B 9 Whooping cough ..	056	1	..	1	..	0.00
B10 Meningococcal infections ..	057	21	17	38	4	0.04
B11 Plague ..	058	..	..	..	..	..
B12 Acute poliomyelitis ..	080	13	8	21	2	0.02
B13 Smallpox ..	084	..	..	..	..	..
B14 Measles ..	085	20	10	30	3	0.03
B15 Typhus and other rickettsial diseases	100-108	..	..	..	..	..
B16 Malaria ..	110-117	..	..	..	..	..
B17 All other diseases classified as infective and parasitic ..	(a)	175	144	319	30	0.36
Malignant neoplasms of—						
Digestive organs & peritoneum	150-159	2,705	2,459	5,164	492	5.81
Lung ..	162-163	1,622	227	1,849	176	2.08
Breast ..	170	7	1,244	1,251	119	1.41
B18 { Genital organs ..	171-179	864	995	1,859	177	2.09
Urinary organs ..	180, 181	447	190	637	61	0.72
Leukemia and aleukemia ..	204	340	261	601	57	0.68
Other malignant and lymphatic neoplasms ..	(b)	1,395	933	2,328	222	2.62
B19 Benign and unspecified neoplasms ..	210-239	84	118	202	19	0.23
B20 Diabetes mellitus ..	260	497	791	1,288	123	1.45
B21 Anaemias ..	290-293	110	164	274	26	0.31
B22 Vascular lesions affecting central nervous system ..	330-334	5,205	6,759	11,964	1,140	13.45
B23 Non-meningococcal meningitis ..	340	71	48	119	11	0.13
B24 Rheumatic fever ..	400-402	19	19	38	4	0.04
B25 Chronic rheumatic heart disease ..	410-416	346	357	703	67	0.79
B26 { Arteriosclerotic heart disease ..	420	13,984	7,770	21,754	2,073	24.45
Degenerative heart disease ..	421, 422	2,459	2,650	5,109	487	5.74
B27 Other diseases of heart ..	430-434	1,468	1,339	2,807	267	3.16
B28 Hypertension with heart disease ..	440-443	639	883	1,522	145	1.71
B29 Hypertension without mention of heart ..	444-447	407	438	845	80	0.95
B30 Influenza ..	480-483	53	47	100	10	0.11
B31 Pneumonia ..	490-493	1,573	1,251	2,824	269	3.17
B32 Bronchitis ..	500-502	1,319	213	1,532	146	1.72
B33 Ulcer of stomach and duodenum ..	540, 541	480	172	652	62	0.73
B34 Appendicitis ..	550-553	85	36	121	12	0.14
B35 Intestinal obstruction and hernia ..	560, 561, 570	253	231	484	46	0.54
B36 Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn ..	543, 571, 572	210	217	427	41	0.48
B37 { Irrrhosis of liver ..	581	300	169	469	45	0.53
B38 Nephritis and nephrosis ..	590-594	557	441	998	95	1.12
B39 Hyperplasia of prostate ..	610	465	..	465	44	0.52
B40 Complications of pregnancy, child birth and the puerperium ..	{ 640-652, 670-689 }	..	108	108	10	0.12
B41 Congenital malformations ..	750-759	694	567	1,261	120	1.42
B42 Birth injuries, post-natal asphyxia and atelectasis ..	760-762	701	487	1,188	113	1.34
B43 Infections of the newborn ..	763-768	108	66	174	17	0.20
B44 Other diseases peculiar to early infancy, and immaturity unqualified ..	769-776	793	598	1,391	133	1.56
B45 Senility without mention of psychosis, ill-defined and unknown causes ..	780-795	389	530	919	88	1.03
General arteriosclerosis ..	450	1,044	1,126	2,170	207	2.44
Other diseases of circulatory system ..	451-468	485	303	788	75	0.89
B46 { Other diseases of respiratory system ..	{ 470-475, 510-527 }	577	249	826	79	0.93
All other diseases ..	Residual	2,009	1,937	3,946	376	4.44
BE47 Motor vehicle accidents ..	E810-E835	1,972	619	2,591	247	2.91
BE48 All other accidents ..	E800-E802, E840-E962	1,885	961	2,846	271	3.20
BE49 Suicide and self-inflicted injury ..	E963, E970-E979	901	348	1,249	119	1.40
BE50 Homicide and operations of war ..	E964, E965, E980-E999	94	60	154	15	0.17
<b>All Causes ..</b>		<b>50,248</b>	<b>38,713</b>	<b>88,961</b>	<b>8,476</b>	<b>100.00</b>

(a) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138.

(b) 140-148, 160, 161, 164, 165, 190-203, 205.

9. Deaths from Principal Causes.—(i) *General*. In the preceding tables, particulars have been given for each of the causes of death comprising the Abbreviated Classification according to the Seventh Revision of the International List. Certain important causes are treated in detail hereunder. The Abbreviated Classification numbers used in tables A to C (pp. 387-90) are indicated in parentheses for each cause or group of causes.

(ii) *All Forms of Tuberculosis (B1, B2)*. (a) *General*. The total number of deaths classified to all forms of tuberculosis in 1961 was 447, consisting of 335 males and 112 females. In comparing any of the figures for 1950 and subsequent years with those for 1949 and earlier years, consideration should be given to the effect of the change in basis from the Fifth to the Sixth Revision of the International List. This was discussed in Official Year Book No. 39, page 626.

(b) *Age at Death*. The following table shows the age groups of males and females who were classified as dying from tuberculosis in 1961, together with figures for 1921, 1931, 1941 and 1951.

#### TUBERCULOSIS (ALL FORMS): DEATHS IN AGE GROUPS, AUSTRALIA

Age group (years)	Males					Females				
	1921	1931	1941	1951	1961	1921	1931	1941	1951	1961
0-14 .. ..	143	90	63	23	5	128	81	54	35	1
15-29 .. ..	477	294	162	46	2	540	487	275	68	..
30-44 .. ..	718	585	428	135	25	514	422	319	142	20
45-64 .. ..	692	674	793	570	128	278	252	251	126	41
65 and over ..	138	193	279	306	175	56	89	110	86	50
Not stated ..	3	..	..	..	..	..	..	..	1	..
Total ..	2,171	1,836	1,725	1,080	335	1,516	1,331	1,009	458	112

(c) *Death Rates*. The reduction in mortality from tuberculosis is shown by the decline in the crude death rate from tubercular diseases, which fell from 68 per 100,000 of mean population in 1921 to 18 in 1951, and still further to 4 in 1961. The reductions in the younger age groups are much greater, as can be seen from the table above.

A comparison of the death rates from tuberculosis for Australia with those for various other countries, made on the latest figures available, shows that Australia, with a rate of 4.3 deaths per 100,000 of mean population, occupies a favourable position as regards this disease. Whereas the rate for the Netherlands is only 2.8, rates range as high as 46.8 for Portugal. For various other countries, rates are as follows:—Denmark 4.0; Canada 4.7; New Zealand 4.8; United States of America 5.9; United Kingdom 7.7; South Africa (European population) 7.8; Switzerland 15.7; Greece 16.6; Italy 18.2; France 22.1; Finland 26.0; Japan 34.2.

(iii) *Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues (B18)*. (a) *General*. Deaths classified under this heading according to the Sixth Revision of the International List (used in Australia for deaths registered in 1950 to 1957) are not directly comparable in total with those on the Fifth Revision basis (*see* Official Year Book No. 39, page 628). This should be kept in mind in considering the comparisons shown in the following pages.

(b) *Seat of Disease*. Tables showing the seat of disease in conjunction with age and conjugal condition of the persons dying from malignant neoplasms in 1961 will be found in *Demography*, Bulletin No. 79. A summary regarding seat of disease for 1961 is given below.

**DEATHS FROM MALIGNANT NEOPLASMS AND NEOPLASMS OF LYMPHATIC  
AND HAEMATPOIETIC TISSUES: AUSTRALIA, 1961.**

Seat of disease	Males	Females	Persons
<b>Malignant Neoplasms—</b>			
Buccal cavity and pharynx .. ..	177	73	250
<b>Digestive organs and peritoneum—</b>			
Oesophagus .. ..	161	92	253
Stomach .. ..	1,038	707	1,745
Small intestine .. ..	14	11	25
Large intestine .. ..	652	904	1,556
Other .. ..	840	745	1,585
Respiratory system .. ..	1,755	264	2,019
Breast .. ..	7	1,244	1,251
Uterus .. ..	..	591	591
Other female genital organs .. ..	..	404	404
Male genital organs .. ..	864	..	864
Urinary organs .. ..	447	190	637
Skin .. ..	234	130	364
Other and unspecified organs .. ..	524	439	963
<i>Total, Malignant Neoplasms</i> .. ..	<i>6,713</i>	<i>5,794</i>	<i>12,507</i>
<b>Neoplasms of Lymphatic and Haematopoietic Tissues—</b>			
Lymphosarcoma and reticulosarcoma .. ..	150	119	269
Hodgkin's disease .. ..	89	63	152
Other forms of lymphoma (reticulosis) .. ..	23	12	35
Multiple myeloma (plasmocytoma) .. ..	63	59	122
Leukaemia and aleukaemia .. ..	340	261	601
Mycosis fungoides .. ..	2	1	3
<i>Total, Neoplasms of Lymphatic and Haematopoietic Tissues</i> .. ..	<i>667</i>	<i>515</i>	<i>1,182</i>
<b>Grand Total</b> .. ..	<b>7,380</b>	<b>6,309</b>	<b>13,689</b>

(c) *Age at Death.* The ages of males and females who died from malignant neoplasms in 1961 are given below, together with figures for 1921, 1931, 1941 and 1951. The increase in the number of deaths from malignant neoplasms in the years since 1921 is due principally to the increase in the number of people in the higher age groups, at which ages the risks of cancer are much greater. While the total population increased by about 93 per cent. between 1921 and 1961, the number of people over 55 years of age increased by about 178 per cent. The increase in the number of deaths in the lower age groups from 1951 is partly due to the inclusion of neoplasms of lymphatic and haematopoietic tissues, and it is probable also that part of the increased number of deaths from cancer recorded in recent years has been due to improved diagnosis and certification on the part of the medical profession.

**MALIGNANT NEOPLASMS(a): NUMBER OF DEATHS IN AGE GROUPS,  
AUSTRALIA**

Age group (years)	Males					Females				
	1921	1931	1941	1951 (a)	1961 (a)	1921	1931	1941	1951 (a)	1961 (a)
Under 15 .. ..	26	25	21	91	130	23	23	25	71	114
15-29 .. ..	29	43	49	103	109	37	38	45	76	84
30-44 .. ..	163	196	176	275	380	266	326	344	387	481
45-54 .. ..	387	410	465	584	823	470	548	685	692	847
55-64 .. ..	800	868	983	1,334	1,699	657	744	926	1,180	1,207
65 and over .. ..	1,032	1,942	2,561	3,128	4,239	875	1,426	2,198	2,698	3,575
Not stated .. ..	3	..	..	..	..	..	..	..	..	1
<b>Total</b> .. ..	<b>2,440</b>	<b>3,484</b>	<b>4,255</b>	<b>5,515</b>	<b>7,380</b>	<b>2,328</b>	<b>3,105</b>	<b>4,223</b>	<b>5,104</b>	<b>6,309</b>

(a) Includes neoplasms of lymphatic and haematopoietic tissues.

(d) *Death Rates.* The death rates from malignant neoplasms have continued to rise over recent years. The rates are crude death rates representing the number of deaths from malignant neoplasms per 100,000 of mean population and do not take account of changes in the age constitution of the population, and to a substantial extent they reflect the increasing age of the population rather than the true change in mortality from malignant neoplasms (see previous paragraph). In 1921, the rate for Australia was 87 (males, 88; females, 87); in 1931 it was 101 (males, 105; females, 97); in 1941 it was 119 (males 119; females, 120); and in 1951 it had risen to 126 (males, 130; females, 122). Figures for 1961 gave a rate of 130 (males, 139; females, 121).

Death rates from malignant neoplasms per 100,000 of mean population for Australia and for various other countries are as follows:—Portugal, 95; Japan, 100; Australia and Canada, 130; South Africa (white population) and New Zealand, 139; Italy, 144; United States of America, 147; Finland, 155; the Netherlands, 168; Switzerland, 195; France, 197; and the United Kingdom, 214. The rates are for the latest available year in each case.

(iv) *Diseases of the Heart (B25 to B28).* The number of deaths classified to diseases of the heart in 1961 was 31,895 (18,896 males and 12,999 females). This class is the largest among causes of death, the rate having increased from 112 per 100,000 of mean population in 1911–15 to 304 in 1961. The increase in the number of deaths recorded from heart diseases has been particularly pronounced during the past twenty years. The rapid increase in mortality is partly a reflection of the ageing of the population, but the figures have been influenced mainly by improved diagnosis and certification by medical practitioners.

The death rates for heart diseases for various years from 1921 were as follows:—1921, 93 (males, 102; females, 83); 1931, 159 (males, 178; females, 142); 1941, 269 (males, 306; females, 231); 1951, 314 (males, 367; females, 259); and 1961, 304 (males, 356; females, 250). Deaths from heart diseases in 1961 represented 36 per cent. of the total deaths.

(v) *Puerperal Causes (B40).* It was shown in Official Year Book No. 39, page 634, that the changes introduced with the Sixth Revision of the International List did not significantly affect the comparability of the total number of deaths from puerperal causes. The Seventh Revision, introduced in 1958, did not affect comparability. The death rate from these causes (including criminal abortion) has fallen rapidly during recent years and in 1961 the rate was 0.5 per 1,000 live births, compared with a rate of 6 per 1,000 in 1936. The 108 deaths in 1961 correspond to a death rate of 2.08 per 100,000 females. The death rate may be expressed in other terms by stating that 1 of every 2,198 women giving birth to a live child in 1961 died from puerperal causes.

The death rate per 1,000 live births from puerperal causes in various countries for the latest available year is as follows:—United States of America, 0.3; United Kingdom, New Zealand, Canada, Denmark and Netherlands, 0.4; Australia and France, 0.5; Finland and Switzerland, 0.7; Italy, 1.1; and Japan, 1.3.

Tables showing ages at marriage and at death, duration of marriage, and issue will be found in *Demography*, Bulletin No. 79.

(vi) *Causes of Infant Mortality.* See paragraph devoted to causes of infant deaths on pages 383–4.

(vii) *Accidents, Poisonings and Violence (BE47 to BE50).* (a) *General.* Deaths in this class are classified according to external cause and not according to nature of injury. The classification provides sub-groups for accidents, including adverse reactions to prophylactic inoculations, therapeutic misadventures and late effects of accidental injury; suicide; homicide and injuries purposely inflicted by other persons; and injury resulting from operations of war, including delayed effects.

The following table, showing the death rates in the main sub-groups per 100,000 of mean population, indicates that the death rate from violence is between two and three times as great for males as for females. It can be seen also that in 1961 the proportion of deaths caused by violence was 7.69 per cent., compared with 6.76 per cent. in 1931–35.

The low level of the rates and proportions for the years 1941–45 is due largely to the exclusion of deaths of defence personnel from accidents, suicide and homicide, though the rates have been based on total mean population (including defence personnel). A further contributing factor is the decrease during this period in the number of automobile accidents. From July, 1947, deaths of defence personnel from accidents, etc., have again been included.

## ACCIDENTS, POISONINGS AND VIOLENCE: DEATH RATES(a)

Period	Death rate from—												All violence, proportion per 10,000 deaths		
	Accidents(b)			Suicide			Homicide(c)			Total violence					
	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.
1931-35..	71	22	47	19	5	12	2	1	2	92	28	61	929	353	676
1936-40..	86	28	58	17	5	11	2	1	1	105	34	70	979	399	724
1941-45..	67	26	46	11	4	8	1	1	1	79	31	55	730	348	558
1946-50..	76	27	51	14	5	10	1	1	1	91	33	62	844	383	640
1951-55..	82	31	57	15	5	10	2	1	1	99	37	68	964	453	740
1956-60..	75	32	53	16	6	11	2	1	2	93	39	66	957	495	754
1957 ..	79	31	56	17	7	12	2	1	1	98	39	69	1,007	496	783
1958 ..	73	30	51	18	6	12	2	1	2	93	37	65	988	489	769
1959 ..	74	31	53	16	6	11	2	1	1	92	38	65	931	484	736
1960 ..	72	33	52	15	6	11	2	1	2	89	40	65	934	518	751
1961 ..	72	30	52	17	7	12	2	1	1	91	38	65	966	514	769

(a) Number of deaths per 100,000 of mean population. (b) Includes "open verdict".  
(c) Includes late effects of injuries due to operations of war.

(b) *Accidents (BE47, BE48).* In 1961, the total number of deaths from accidental causes was 5,437 (3,857 males and 1,580 females). Just over half of the accidental deaths were the result of transport accidents. Of these, the numbers attributable to the major causes, and the percentages of the total accidental deaths in each case, were as follows:—Motor vehicle traffic accidents, 2,531 (46.55 per cent.); motor vehicle non-traffic accidents, 60 (1.10 per cent.); other road vehicle accidents, 57 (1.05 per cent.); railway accidents, 102 (1.88 per cent.); water transport accidents, 113 (2.08 per cent.); aircraft accidents, 54 (0.99 per cent.); a total of 2,917 (53.65 per cent.). Other important causes were accidental falls, 912 (16.77 per cent.); accidental drowning, 467 (8.59 per cent.); and accidents caused by fire and explosion of combustible material, 196 (3.60 per cent.).

(c) *Suicide (BE49). Modes Adopted.* Deaths from suicide in 1961 numbered 1,249 (males, 901; females, 348). Firearms and explosives were used in 307 cases (24.58 per cent. of total deaths by suicide). Other important modes adopted, together with the numbers and relevant percentages, were as follows:—Poisoning other than by gases, 375 (30.02 per cent.); poisoning by gases, 247 (19.78 per cent.); hanging or strangulation, 167 (13.37 per cent.); submersion (drowning), 56 (4.48 per cent.); other modes, 97 (7.77 per cent.).

Of the 901 males who committed suicide, 289 (32.08 per cent.) used firearms or explosives. For females the most common mode was poisoning (other than by gases). This was used in 175 cases (50.29 per cent.).

*Age at Death.* The following table shows the age of persons who committed suicide in 1961.

## AGE OF PERSONS WHO COMMITTED SUICIDE: AUSTRALIA, 1961

Age group (years)	Males	Females	Persons	Age group (years)	Males	Females	Persons
10-14 ..	1	..	1	60-64 ..	63	34	97
15-19 ..	23	8	31	65-69 ..	61	31	92
20-24 ..	46	15	61	70-74 ..	42	15	57
25-29 ..	54	24	78	75-79 ..	22	3	25
30-34 ..	68	33	101	80-84 ..	4	3	7
35-39 ..	83	35	118	85 and over	4	2	6
40-44 ..	106	34	140	Not Stated	3	1	4
45-49 ..	110	33	143				
50-54 ..	115	36	151				
55-59 ..	96	41	137				
				<b>Total Deaths ..</b>	<b>901</b>	<b>348</b>	<b>1,249</b>

(d) *Homicide and Operations of War (BE50).* Of the 154 deaths recorded in 1961, there were 142 deaths from homicide and injury purposely inflicted by other persons (not in war), of which assault by firearms and explosives caused 56, assault by cutting and piercing instruments 23, and assault by other means 63. Deaths from injury resulting from the operations of war numbered 12, but all were deaths from late effects of such injuries.

10. *Age at Death and Average Issue of Deceased Married Males and Females.*—*Demography*, Bulletin No. 79, contains a number of tables showing, in combination with the issue, the age at marriage, age at death and occupation of married (including widowed or divorced) persons who died in Australia in 1961. Deaths of married males in 1961 numbered 38,497, and those of married females, 30,849. The tables which follow deal, however, with only 37,967 males and 30,636 females, the information regarding issue in the remaining 743 cases being incomplete. The total number of children in the families of the 37,967 males was 113,067 and of the 30,636 females, 98,763. The average number of children is shown for various age groups in the following table.

**AGE AT DEATH AND AVERAGE ISSUE OF DECEASED MARRIED(a) MALES  
AND FEMALES: AUSTRALIA**

Age at death (years)	Average issue									
	Males					Females				
	1921	1931	1941	1951	1961	1921	1931	1941	1951	1961
Under 20 ..	..	0.75	..	0.43	0.33	0.77	0.66	0.79	0.83	0.75
20-24..	0.84	0.81	0.73	0.96	0.93	1.22	1.13	0.95	0.86	1.12
25-29..	1.29	1.33	1.12	1.29	1.56	1.86	1.81	1.45	1.61	2.00
30-34..	2.06	1.79	1.76	1.79	2.23	2.45	2.34	1.91	1.98	2.37
35-39..	2.58	2.13	2.11	2.12	2.37	3.29	2.89	2.30	2.49	2.47
40-44..	3.23	2.77	2.49	2.30	2.44	3.66	3.29	2.77	2.39	2.44
45-49..	3.48	3.10	2.68	2.51	2.49	3.76	3.55	2.93	2.59	2.38
50-54..	3.76	3.46	2.96	2.56	2.46	4.23	3.60	3.29	2.76	2.43
55-59..	4.41	3.69	3.28	2.71	2.45	4.69	4.01	3.55	3.03	2.50
60-64..	4.98	4.02	3.55	3.07	2.58	5.39	4.21	3.79	3.29	2.69
65-69..	5.50	4.41	3.73	3.25	2.77	5.86	4.82	4.01	3.63	3.04
70-74..	6.06	5.06	4.17	3.58	3.00	6.30	5.41	4.29	3.64	3.30
75-79..	6.66	5.65	4.56	3.83	3.31	6.56	6.02	4.85	3.96	3.44
80-84..	6.89	6.17	4.93	4.30	3.62	6.76	6.26	5.39	4.19	3.58
85-89..	7.18	6.59	5.70	4.63	3.94	6.93	6.57	5.85	4.68	3.78
90-94..	7.21	6.94	6.57	5.06	4.39	6.53	6.73	6.11	5.08	3.99
95-99..	6.97	6.69	7.04	5.78	4.76	6.05	7.10	6.34	5.76	4.51
100 and over ..	9.20	7.00	8.69	5.71	5.38	5.11	8.20	6.73	7.72	4.63
Age not stated ..	5.36	5.00	..	8.00	..	5.80	5.00	..	5.50	5.00
<b>All Ages ..</b>	<b>4.97</b>	<b>4.44</b>	<b>3.91</b>	<b>3.39</b>	<b>2.98</b>	<b>5.05</b>	<b>4.72</b>	<b>4.22</b>	<b>3.68</b>	<b>3.22</b>

(a) Includes widowed or divorced.

11. *Age at Marriage of Deceased Males and Females, and Issue.*—The following table shows the average issue of males and females according to the age at marriage of the deceased parent.

**AGE AT MARRIAGE AND AVERAGE ISSUE OF DECEASED MALES  
AND FEMALES: AUSTRALIA**

Age at marriage (years)	Average issue									
	Males					Females				
	1921	1931	1941	1951	1961	1921	1931	1941	1951	1961
Under 15 ..	..	..	..	..	..	7.60	6.36	7.80	4.88	4.45
15-19.. ..	6.32	6.15	5.40	4.63	4.11	6.97	6.79	6.10	5.41	4.74
20-24.. ..	6.05	5.56	4.89	4.23	3.65	5.50	5.23	4.80	4.28	3.77
25-29.. ..	5.17	4.70	4.21	3.65	3.16	4.09	3.79	3.51	3.14	2.85
30-34.. ..	4.45	3.96	3.41	3.00	2.64	2.66	2.42	2.35	2.23	1.98
35-39.. ..	3.90	3.14	2.80	2.45	2.11	1.61	1.40	1.26	1.16	1.14
40-44.. ..	2.67	2.36	2.01	1.69	1.49	0.62	0.39	0.35	0.36	0.31
45-49.. ..	2.20	1.96	1.52	1.33	1.11	0.03	0.12	0.01	0.07	0.06
50-54.. ..	1.70	1.60	1.05	0.80	0.71	..	..	..	..	..
55-59.. ..	1.30	0.95	0.79	0.49	0.25	..	..	..	..	..
60-64.. ..	0.33	0.63	0.29	0.24	0.25	..	..	..	..	..
65 and over ..	0.25	0.18	0.01	0.29	0.24	..	..	..	..	..
Age not stated ..	4.93	3.64	2.95	2.81	2.40	5.41	3.96	2.45	3.17	2.44
<b>All Ages ..</b>	<b>4.97</b>	<b>4.44</b>	<b>3.91</b>	<b>3.39</b>	<b>2.98</b>	<b>5.05</b>	<b>4.72</b>	<b>4.22</b>	<b>3.68</b>	<b>3.22</b>

**§ 6. Vital Statistics of External Territories**

The following table shows, for the year 1961, the number of marriages, births and deaths registered in the external territories under the control of Australia. More detailed information will be found in a series of tables in *Demography*, Bulletin No. 79.

**EXTERNAL TERRITORIES: VITAL STATISTICS, 1961**

Territory	Marriages	Births	Deaths
Christmas Island(a) .. ..	3	100	11
Cocos (Keeling) Islands(b) .. ..	..	2	1
Norfolk Island(a) .. ..	6	10	11
Papua(c) .. ..	96	239	29
Trust Territory of New Guinea(c) .. ..	111	377	35
Trust Territory of Nauru(c) .. ..	3	19	1

(a) Total population.  
population only.

(b) Excluding those registered on Home Island.

(c) Non-indigenous

**§ 7. International Vital Statistics**

**Vital Statistics Rates—Principal Countries.**—In the following table, vital statistics rates for selected countries are shown. Crude marriage, birth, and death rates represent the number of "events" reported for the year stated per 1,000 of the population. Infant mortality rates

are the number of deaths which occurred under one year of age per 1,000 live births. The true death rates (reciprocals of the expectation of life at birth) have been computed from the life tables for the respective countries as published in the United Nation's *Demographic Yearbook*, 1961 (see explanation of true death rates, para. 4, p. 378).

In many instances, the rates shown in the following table are estimates and the results of sample surveys only. Reference should be made to the detailed comments contained in the United Nation's *Demographic Yearbook*, 1961 (see particularly Technical Notes on Statistical Tables and footnotes to the tables).

### VITAL STATISTICS RATES: SELECTED COUNTRIES—LATEST AVAILABLE YEAR

(Source: United Nation's *Demographic Yearbook*, 1961)

Country	Year	Rates(a)				Year	True death rates (b)	
		Mar- riage	Birth	Death	Infant mortal- ity		Male	Female
Africa—								
South Africa—								
White population ..	1961	(c) 9.3	25.0	8.8	27.6	1950-52	15.5	14.3
Coloured population ..	1961	(c) 7.3	48.0	15.9	126.8	1950-52	22.3	20.9
Asian population ..	1960	7.5	35.4	7.6	60.0	1950-52	17.9	18.3
Congo (Leopoldville) (in- digenous population) ..	1955-57	(d)	43.0	20.0	104.0	1950-52	26.6	25.0
Sudan ..	1955	(d)	51.7	18.5	93.6	..	(d)	(d)
Tanganyika ..	1947	(d)	44.0	25.0	170.0	..	(d)	(d)
Uganda ..	1959	(d)	42.0	20.0	160.0	..	(d)	(d)
Ruanda-Urundi (indi- genous population) ..	1957	(d)	49.5	15.4	(d)	..	(d)	(d)
Tunisia ..	1959	5.9	44.9	26.0	109.5	..	(d)	(d)
Guinea ..	1954	(d)	62.0	40.0	(d)	..	Persons (d)	
Rural ..	1954	(d)	(d)	(d)	220	1954-55	32.8	
Urban ..	1954	(d)	(d)	(d)	190	1954-55	27.9	
North America—								
United States of America	1961	8.5	23.4	9.3	25.2	1959	15.0	13.7
Mexico ..	1960	6.2	45.0	11.4	75.1	1940	26.4	25.1
Canada ..	1961	7.0	26.0	7.7	(c) 27.3	1955-57	14.8	13.7
Guatemala ..	1960	4.4	49.5	17.5	91.9	1949-51	22.8	23.0
West Indies ..	1960	(e) 6.0	41.6	9.3	(f) 71.5	..	(d)	(d)
El Salvador ..	1961	3.5	49.6	11.4	(c) 76.3	1949-51	20.0	19.1
Puerto Rico ..	1961	8.9	31.0	6.7	41.3	1939-41	22.2	21.3
Costa Rica ..	1961	7.1	55.4	7.9	(c) 80.3	1949-51	18.3	17.5
South America—								
Brazil ..	1950	(d)	43.0	20.6	170.0	1940-50	25.4	22.0
Argentina ..	1960	6.7	22.3	8.1	(g) 59.1	1947	17.6	16.3
Venezuela ..	1960	5.6	49.6	8.0	45.1	..	(d)	(d)
Chile ..	1960	7.1	35.4	11.9	127.9	1952	20.1	18.6
Bolivia ..	1961	4.9	26.5	8.5	(h) 90.7	1949-51	20.1	20.1
Uruguay ..	1960	(g) 7.5	21.3	8.1	(f) 49.1	..	(d)	(d)
Asia—								
China (mainland) ..	1957	(d)	34.0	11.0	(d)	..	(d)	(d)
India ..	1958	(d)	39.1	19.2	145.9	1941-50	30.8	31.6
Japan ..	1961	9.5	16.8	7.4	28.8	1960	15.3	14.2
Indonesia ..	1953-54	(d)	40.0	20.0	150.0	..	(d)	(d)
Philippines ..	1960	(f) 5.1	29.2	7.7	73.1	1946-49	20.5	18.7
Thailand ..	1956	(f) 1.7	42.0	20.0	(g) 47.1	1947-48	20.5	19.3
Korea, Republic of ..	1960	5.8	36.6	(j) 21.2	(d)	..	(d)	(d)
China (Taiwan) ..	1961	7.6	38.3	6.7	(c) 30.5	1959-60	16.3	15.2
Ceylon ..	1959	6.4	37.0	9.1	57.5	1954	16.6	16.8
Nepal ..	1954	(d)	45.0	30.0	(d)	..	(d)	(d)
Malaya, Federation of ..	1960	0.8	40.9	9.5	68.9	1956-58	17.9	17.2
Cambodia ..	1959	(d)	41.4	19.7	127.0	1958-59	22.6	23.1
Hong Kong ..	1961	(d)	34.3	5.9	37.7	..	(d)	(d)
Israel (Jewish population)	1961	7.1	22.0	5.7	25.5	1960	14.2	13.6
Singapore ..	1961	(c) 3.7	35.5	5.9	32.3	..	(d)	(d)
Cyprus ..	1960	5.1	25.8	5.7	29.9	1948-50	15.7	14.5

See footnotes on following page.



**VITAL STATISTICS RATES: SELECTED COUNTRIES—LATEST AVAILABLE  
YEAR—continued**

Country	Year	Rates(a)				Year	True death rates (b)	
		Mar- riage	Birth	Death	Infant mor- tality		Male	Female
<b>Europe—</b>								
Germany, Federal Republic of ..	1961	(c) 9.4	18.2	10.9	31.7	1959-60	15.0	13.9
United Kingdom of Great Britain and Northern Ireland ..	1961	7.6	17.8	12.0	22.1	..	(d)	(d)
Ireland ..	1961	7.5	17.4	12.0	21.4	1960	14.6	13.5
England and Wales ..	1961	6.9	22.4	11.3	27.2	1958-60	14.8	13.9
Northern Ireland ..	1961	7.8	19.5	12.3	25.9	1960	15.1	13.9
Scotland ..	1961	8.0	18.8	9.4	40.1	1954-57	15.2	14.3
Italy ..	1961	6.7	18.4	11.0	26.1	1960	14.9	13.6
France ..	1961	7.8	21.3	8.6	46.8	1950	17.0	15.7
Spain ..	1961	7.9	20.7	7.6	54.9	1958	15.9	14.5
Poland ..	1961	9.0	22.6	9.0	82.2	1952-54	17.6	16.9
Yugoslavia ..	1961	9.7	17.5	8.7	71.0	..	(d)	(d)
Romania ..	1960	9.7	17.2	13.3	38.8	1955-58	15.1	14.1
Eastern Germany ..	1961	7.6	15.8	9.2	22.7	1958	14.9	13.8
Czechoslovakia ..	1961	8.0	21.2	7.6	15.4	1953-55	14.1	13.5
Netherlands ..	1961	8.3	14.0	9.6	43.9	1958	15.4	14.4
Hungary ..	1960	7.1	16.9	12.9	30.6	1946-49	16.1	14.9
Belgium ..	1961	8.5	23.6	10.7	88.5	1957-58	16.7	15.4
Portugal ..	1960	8.8	17.8	8.1	45.1	1925-28	21.8	21.4
Bulgaria ..	1961	7.0	13.9	9.8	15.5	1959	13.9	13.3
Sweden ..	1961	8.4	18.5	12.0	32.9	1949-51	16.2	14.9
Austria ..	1961	7.7	18.1	9.3	20.8	1948-53	15.1	14.1
Switzerland ..	1960	7.5	16.6	9.6	(g) 22.5	1951-55	14.5	13.8
Denmark ..	1961	7.7	18.4	9.0	19.8	1951-55	15.8	14.3
Finland ..	1961	6.5	17.5	9.1	(g) 18.7	1951-55	14.1	13.4
Norway ..	1961	5.4	21.3	12.3	30.5	1950-52	15.5	14.9
Ireland ..	1961	(c) 9.8	10.5	16.2	32.7	1949-51	15.7	14.6
West Berlin ..	1961							
<b>Oceania—</b>								
Australia ..	1961	7.3	22.8	8.5	19.5	1953-55	14.9	13.7
New Zealand ..	1961	8.0	27.1	9.0	22.8	1955-57	14.7	13.7
Europeans ..	..	(d)	(d)	(d)	(d)	1950-52	14.6	13.8
Maori ..	..	(d)	(d)	(d)	(d)	1950-52	18.5	17.9
<b>U.S.S.R.—</b>								
Union of Soviet Socialist Republics ..	1960	12.1	24.9	7.1	35.0	1958-59	15.6	13.9

(a) Crude marriage, birth and death rates, i.e., number of marriages, births and deaths per 1,000 of population. Infant mortality—number of deaths of children under one year of age per 1,000 live births. (b) Number of deaths per 1,000 males and 1,000 females respectively in stationary population (see explanation on p. 378. (c) 1960. (d) Not available, or available information relates to a segment of population only. (e) 1956. (f) 1958. (g) 1959. (h) 1954. (i) 1961. (j) 1955.

## CHAPTER XI

### HOUSING AND BUILDING

**NOTE.**—In § 1 of this chapter details are given of the characteristics of dwellings as obtained from censuses, § 2 provides a summary of building activities, § 3 outlines government activities in the field of housing, and § 4 relates to financial arrangements associated with the erection or purchase of homes.

For further information on dwellings as obtained from censuses, reference should be made to the results published in the detailed tables of the 1961 Census (*see Price List of Publications at end of this volume*) and earlier censuses and in the mimeographed statements of the 1961 Census.

More detailed information on building activity may be found in the *Quarterly Bulletin of Building Statistics*, and current information is obtainable also in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and in the mimeographed statements *Building Statistics: Number of New Houses and Flats* (quarterly), and *Building Approvals* (monthly). Details relating to a State are available from publications issued regularly by the Deputy Commonwealth Statistician in that State.

Commonwealth Government activities relate in the main to the provision of moneys to State Governments under Commonwealth-State Housing Agreements, to the assistance of ex-service personnel in the erection and purchase of homes, and to the provision of homes in the Territories. Further details of activities of the Commonwealth and State Housing Authorities are shown in the reports issued by these authorities.

#### § 1. Census Dwellings

**1. General.**—At each census of the population, in addition to the questions relating to the personal particulars of the individual members of households, there have been a number of important questions on the census schedule designed to elicit information concerning the dwellings in which the population was housed at the date of the census. For the purpose of the census, a "dwelling" is any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term has therefore a very wide reference, and includes, *in addition to houses and flats*, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution.

**2. Number of Dwellings.**—(i) *Censuses 1911 to 1961.* The following table shows the number of occupied and unoccupied dwellings in Australia at each census from 1911 to 1961. Occupied dwellings are classified into "private" and "other than private" dwellings (*see para. 3, p. 403*, for definitions of "private" and "other than private" dwellings). As the term "unoccupied dwellings" includes "week-enders", "holiday homes" and other dwellings whose usual occupants were temporarily absent on census night, the total number of unoccupied dwellings must not be taken as representing the number of vacant houses and flats available for occupancy. Newly completed dwellings awaiting occupancy are also included as "unoccupied".

**DWELLINGS: AUSTRALIA, CENSUSES, 1911 TO 1961**  
(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS)

Census				Occupied			Unoccupied
				Private	Other than private	Total	
1911	..	..	..	894,389	29,070	923,459	33,473
1921	..	..	..	1,107,010	46,275	1,153,285	51,163
1933	..	..	..	1,509,671	37,705	1,547,376	68,772
1947	..	..	..	1,873,623	34,272	1,907,895	47,041
1954	..	..	..	2,343,421	36,932	2,380,353	112,594
1961	..	..	..	2,781,945	35,325	2,817,270	194,114

(ii) *Census, 1961.* The following table shows the number of occupied and unoccupied dwellings in the urban and rural areas of Australia at the Census of 30th June, 1961. (For definitions of "urban" and "rural" see Chapter IX. Population, para. 3, p. 307.) The boundaries of the metropolitan urban and other divisions of States differ from Census to Census, and consequently accurate comparison cannot be made between figures for corresponding divisions.

The total number of occupied dwellings in Australia at the Census of 30th June, 1961, showed an increase of 18.4 per cent. over the corresponding figure for the 1954 Census, compared with an increase of 16.9 per cent. in population. Occupied private dwellings increased by 18.7 per cent., while occupied dwellings other than private decreased by 4.4 per cent. At the 1961 Census, 98.7 per cent. of the total occupied dwellings in Australia were private dwellings, compared with 98.4 per cent. in 1954. Proportional increases in total occupied dwellings over 1954 figures in each State and Territory were:—New South Wales, 16.3 per cent.; Victoria, 19.7 per cent.; Queensland, 17.4 per cent.; South Australia, 21.6 per cent.; Western Australia, 19.3 per cent.; Tasmania, 15.8 per cent.; Australian Capital Territory, 95.8 per cent.; and Northern Territory, 59.9 per cent.

Unoccupied dwellings increased by 72.4 per cent.

**DWELLINGS: AUSTRALIA, CENSUS, 30th JUNE, 1961**  
(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS)

Division	Occupied				Unoccupied	
	Private	Other than private	Total		Number	Proportion of total
			Number	Proportion of total		
				Per cent.		Per cent.
Urban—						
Metropolitan ..	1,607,392	18,304	1,625,696	57.70	59,096	30.44
Other ..	706,535	9,207	715,742	25.41	58,577	30.18
Rural ..	468,018	7,814	475,832	16.89	76,441	39.38
<b>Total ..</b>	<b>2,781,945</b>	<b>35,325</b>	<b>2,817,270</b>	<b>100.00</b>	<b>194,114</b>	<b>100.00</b>

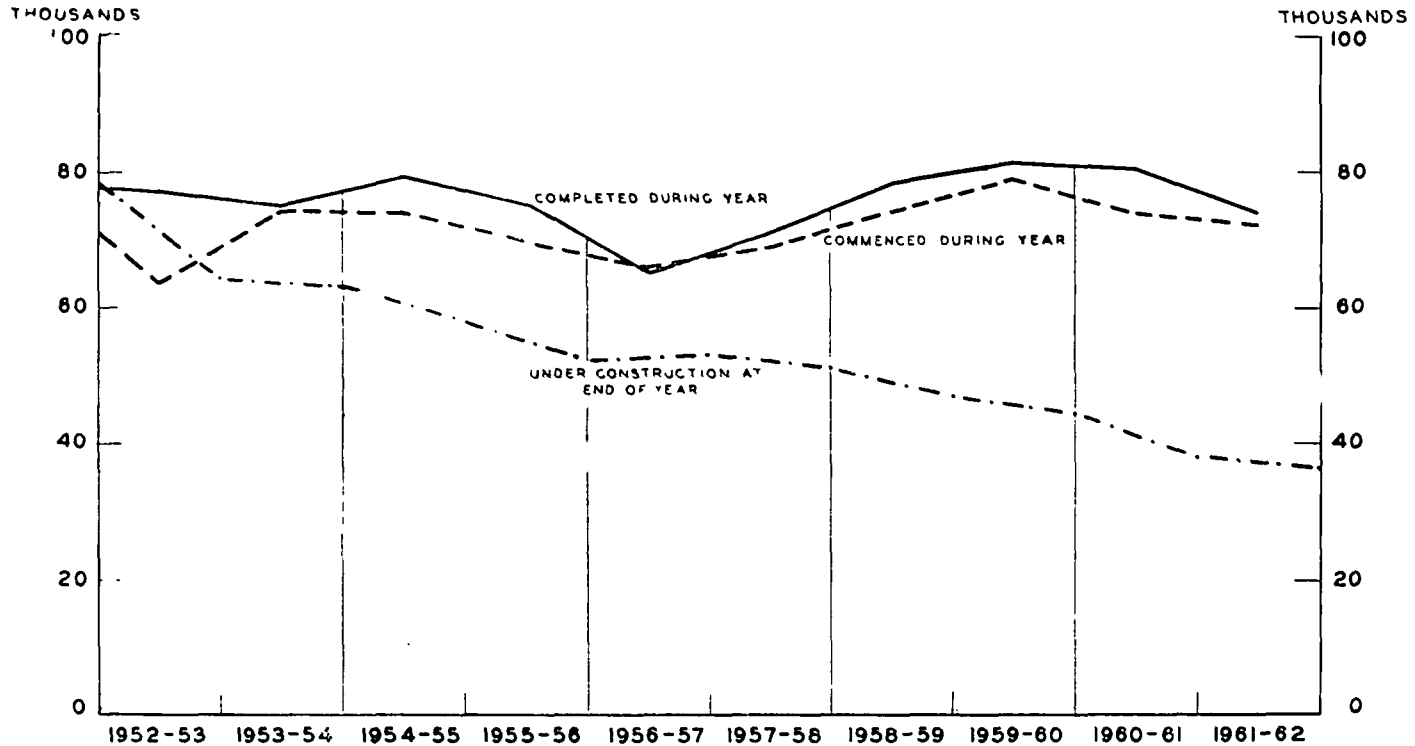
(iii) *Censuses 1954 and 1961.* The total numbers of occupied and unoccupied dwellings in each State and Territory at the Censuses of 1954 and 1961 were as follows.

**DWELLINGS: STATES AND TERRITORIES, 1954 AND 1961**  
(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS)

State or Territory				Census, 30th June, 1954		Census, 30th June, 1961	
				Occupied	Unoccupied	Occupied	Unoccupied
New South Wales	..	..	..	912,877	42,831	1,061,609	72,432
Victoria	..	..	..	660,690	27,491	790,529	47,389
Queensland	..	..	..	339,328	21,473	398,233	33,969
South Australia	..	..	..	215,301	8,524	261,908	17,061
Western Australia	..	..	..	162,823	6,614	194,317	13,705
Tasmania	..	..	..	78,789	5,288	91,258	8,582
Northern Territory	..	..	..	3,427	47	5,479	179
Australian Capital Territory	..	..	..	7,118	326	13,937	797
<b>Australia</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>2,380,353</b>	<b>112,594</b>	<b>2,817,270</b>	<b>194,114</b>

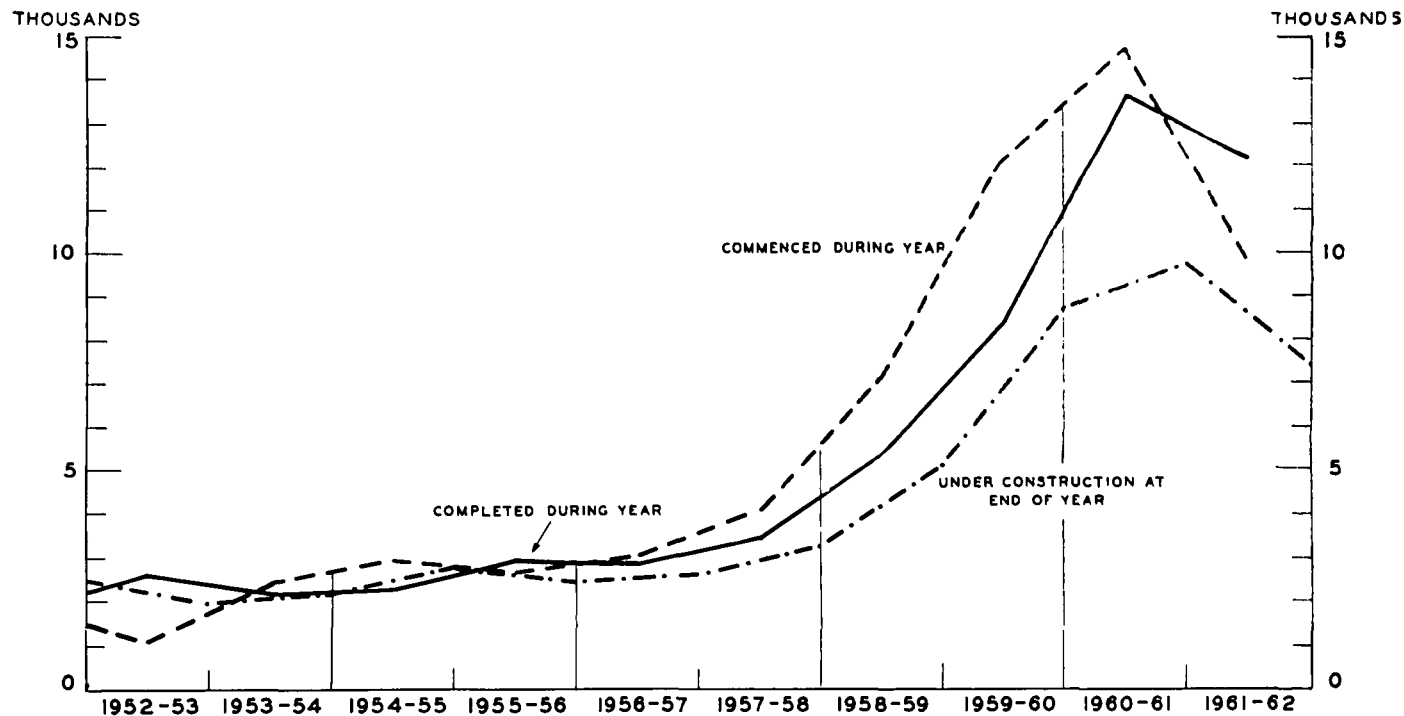
# NEW HOUSES: AUSTRALIA

1952-53 TO 1961-62



# NEW FLATS: AUSTRALIA

1952-53 TO 1961-62



3. **Class of Dwelling.**—The following table shows the numbers of the various classes of occupied dwellings in the metropolitan urban, other urban, and rural areas of Australia at the censuses of 1954 and 1961.

**Private dwellings** are classified into the following four categories:—

*Private House*—includes houses, sheds, huts, garages, etc., used for dwelling purposes, and shared private houses for which only one householder's schedule was received;

*Share of Private House*—portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received;

*Flat*—part of a house or other building which can be completely closed off and which has its own cooking and bathing facilities;

*Other Private Dwelling*—includes private dwellings such as rooms, apartments, etc., which are parts of buildings but are not self-contained units.

**Other than Private dwellings** include hotels; motels; boarding houses, lodging houses and hostels; educational, religious and charitable institutions; hospitals; defence and penal establishments; police and fire stations; clubs; staff barracks and quarters, etc.

It is desirable when considering the question of housing to exclude those forms of accommodation which do not represent the normal housing conditions associated with family life, and the statistics which follow relate therefore mainly to private dwellings.

### OCCUPIED DWELLINGS BY CLASS: AUSTRALIA, 1954 AND 1961

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINES)

Class of occupied dwelling	Census, 30th June, 1954				Census, 30th June, 1961				Increase, 1954-61
	Urban(a)		Rural (a)	Total, Australia	Urban(a)		Rural (a)	Total, Australia	
	Metro-politan	Other			Metro-politan	Other			
Private House(b)—									
House .. .. .	1,067,674	506,128	433,069	2,006,871	1,324,627	630,072	438,470	2,393,169	386,298
Shed, hut, etc. ..	14,259	12,276	22,613	49,148	10,740	11,338	19,919	41,997	-7,151
Total .. .. .	1,081,933	518,404	455,682	2,056,019	1,335,367	641,410	458,389	2,435,166	379,147
Share of private house(c) ..	77,344	22,747	7,125	107,216	59,727	15,248	4,575	79,550	-27,666
Flat(d) .. .. .	104,603	20,784	2,033	127,420	169,934	43,134	4,518	217,586	90,166
Other .. .. .	45,308	6,744	714	52,766	42,364	6,743	536	49,643	-3,123
Total Private Dwellings ..	1,309,188	568,679	465,554	2,343,421	1,607,392	706,535	468,018	2,781,945	438,524
Caretaker's quarters ..	998	264	194	1,456	(e)	(e)	(e)	(e)	-1,456
Licensed hotel .. ..	1,720	2,457	2,015	6,192	1,759	2,447	1,878	6,084	-108
Motel .. .. .	14,110	4,120	1,041	19,271	{ 13,571	61	303	137	501
Boarding house, etc. }									
Educational institution(f) ..	523	488	251	1,262	308	4,095	827	18,493	-277
Religious institution (non-educational)(f) ..	142	31	24	197	559	273	103	684	-578
Hospital .. .. .	559	517	353	1,429	637	422	199	1,180	983
Charitable institution (other than hospital) ..	299	107	104	510	314	487	319	1,443	14
Other .. .. .	852	1,091	4,672	6,615	1,095	118	78	510	..
Total Dwellings Other than Private ..	19,203	9,075	8,654	36,932	1,095	1,062	4,273	6,430	-185
Total Occupied Dwellings ..	1,328,391	577,754	474,208	2,380,353	18,304	9,207	7,814	35,325	-1,607
Total Occupied Dwellings per Square Mile ..	592.88	123.44	0.16	0.80	661.00	173.75	0.16	0.95	0.15
Wagon, van, etc. (including campers-out) ..	2,693	3,605	5,383	11,681	470	2,332	3,653	6,455	-5,226

(a) See text on p. 400 regarding comparability as between censuses. (b) Includes shared private houses for which only one householder's schedule was received. (c) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (d) Prior to 1961, single self-contained dwellings attached to, or situated above offices, shops, etc., were classified as private houses irrespective of the description stated in the householder's schedule. In 1961 such dwellings, if described as self-contained flats, were classified as flats. (e) Included with Private dwellings. (f) Certain institutions previously classified as "Educational" were in 1961 classified as "Religious".

NOTE.—Minus sign (—) denotes decrease.

4. **Population According to Class of Dwelling, etc.**—The following table shows the number of the various classes of occupied dwellings at the Censuses of 1954 and 1961, together with the number of inmates therein.

**OCCUPIED DWELLINGS, ETC., AND INMATES: AUSTRALIA, 1954 AND 1961**

(EXCLUDING FULL-BLOOD ABORIGINALS AND DWELLINGS OCCUPIED SOLELY BY THEM)

Particulars	Census, 30th June, 1954			Census, 30th June, 1961		
	Number of dwellings	Inmates		Number of dwellings	Inmates	
		Number	Proportion of total		Number	Proportion of total
			%			%
Private House(a)—						
House .. .. .	2,006,871	7,448,978	82.89	2,393,169	8,997,596	85.62
Shed, hut, etc. .. .	49,148	134,187	1.49	41,997		
Total .. .. .	2,056,019	7,583,165	84.38	2,435,166	8,997,596	85.62
Share of private house(b) ..	107,216	290,579	3.23	79,550	224,066	2.13
Flat(c) .. .. .	127,420	329,265	3.67	217,586	552,596	5.26
Other .. .. .	52,766	111,353	1.24	49,643	96,236	0.92
Total, Private Dwellings(d)	2,343,421	8,314,362	92.52	2,781,945	9,870,494	93.93
Dwellings Other than Private(d)	36,932	618,743	6.89	35,325	596,410	5.68
Total, Occupied Dwellings	2,380,353	8,933,105	99.41	2,817,270	10,466,904	99.61
Wagon, van, etc. .. .. .	11,681	30,056	0.33	6,455	15,996	0.15
Migratory(e) .. .. .	..	23,369	0.26	..	25,286	0.24
Total Population .. .. .	..	8,986,530	100.00	..	10,508,186	100.00

(a) Includes shared private houses for which only one householder's schedule was received.  
 (b) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (c) See footnote (d) to table on p. 403. (d) See footnote (e) to table on p. 403. (e) Shipping, railway and air travellers.

5. **Occupied Private Dwellings.**—(i) *Material of Outer Walls.* In the following table, occupied private dwellings are classified according to the material of the outer walls

Wood has been the most extensively used material in the construction of the outer walls, followed by brick and fibro-cement, and for Australia at 30th June, 1961, the respective proportions for which material of outer walls was specified, were 41.5 per cent., 34.3 per cent., and 16.3 per cent. Fibro-cement dwellings have increased from 1933, when the proportion was 1.6 per cent. (23,696 dwellings), to 6.3 per cent. in 1947 (117,631 dwellings), to 12.7 per cent. in 1954 (296,553 dwellings), and to 16.3 per cent. in 1961 (452,267 dwellings). The proportions of both brick and wooden dwellings have shown small decreases since 1954. The numbers of dwellings of all other materials except fibro-cement and concrete have decreased. Brick dwellings in 1961 represented 50.3 per cent. of all occupied private dwellings in the metropolitan urban division, while in the other urban and rural divisions wooden dwellings predominated, the percentages of such dwellings being 54.8 per cent. and 55.3 per cent. respectively.

### OCCUPIED PRIVATE DWELLINGS BY MATERIAL OF OUTER WALLS: AUSTRALIA, 1954 AND 1961

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS)

Material of outer walls	Census, 30th June, 1954				Census, 30th June, 1961				Increase, 1954-61
	Urban(a)		Rural (a)	Total, Aus- tralia	Urban(a)		Rural (a)	Total, Aus- tralia	
	Metro- politan	Other			Metro- politan	Other			
Brick ..	674,165	86,254	25,089	785,508	807,311	113,392	32,291	952,994	167,486
Stone ..	35,907	18,049	33,604	87,560	32,828	19,917	30,325	83,070	- 4,490
Concrete ..	24,299	13,497	13,639	51,435	40,779	19,111	15,455	75,345	23,910
Wood ..	422,010	341,145	276,584	1,039,739	507,775	386,557	258,251	1,152,583	112,844
Iron, tin ..	7,387	19,652	31,177	58,216	4,556	17,236	24,869	46,661	- 11,555
Fibro-cement ..	140,542	84,835	71,176	296,553	208,271	146,002	97,994	452,267	155,714
Calico, canvas, hessian ..	426	1,843	5,446	7,715	105	585	1,918	2,608	- 5,107
Other ..	3,644	2,686	7,750	14,080	4,328	2,958	5,844	13,130	- 950
Not stated ..	808	718	1,089	2,615	1,439	777	1,071	3,287	672
Total ..	1,309,188	568,679	465,554	2,343,421	1,607,392	706,535	468,018	2,781,945	438,524

(a) See text on p. 400 regarding comparability as between censuses.

NOTE.—Minus sign (–) denotes decrease.

(ii) *Number of Rooms.* For Census purposes, the kitchen and any permanently enclosed sleep-out were included in the number of rooms in the dwelling, but the bathroom, pantry, laundry and storehouse were excluded unless generally used for sleeping.

Excluding houses with rooms unspecified, private houses of four, five and six rooms represented 80.2 per cent. of the total number of private houses in Australia at 30th June, 1961, compared with 78.3 per cent. in 1954; 90.2 per cent. of the total increase in the number of private houses since 1954 consisted of houses containing these numbers of rooms.

### OCCUPIED PRIVATE DWELLINGS BY NUMBER OF ROOMS: AUSTRALIA, 1954 AND 1961

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS)

Number of rooms(a) per dwelling	Census, 30th June, 1954					Census, 30th June, 1961				
	Private house (b)	Share of private house (c)	Flat (d)	Other	Total private dwellings	Private house (b)	Share of private house (c)	Flat (d)	Other	Total private dwellings
METROPOLITAN URBAN(e)										
1 ..	5,383	9,353	678	15,186	30,600	3,021	5,478	1,722	12,165	22,386
2 ..	17,177	17,018	5,723	16,126	56,044	8,277	13,325	15,389	17,063	54,054
3 ..	39,250	18,164	21,614	7,841	86,869	29,756	16,042	40,323	7,685	93,806
4 ..	192,237	13,477	40,911	3,176	249,801	204,273	12,146	61,998	2,602	281,019
5 ..	377,643	9,176	23,221	1,175	411,215	515,409	8,839	31,858	919	557,025
6 ..	302,004	5,734	9,073	594	317,405	380,193	1,626	12,521	198	394,538
7 ..	96,252	2,095	2,098	193	100,638	126,998	465	3,491	73	131,027
8 ..	31,608	869	685	92	33,254	41,128	161	1,296	40	42,625
9 ..	10,562	264	213	41	11,080	13,716	43	425	23	14,207
10 and over ..	8,841	111	83	14	9,049	10,644	62	129	36	10,871
Not stated ..	976	1,083	304	870	3,233	1,952	1,540	782	1,560	5,834
Total Private Dwellings ..	1,081,933	77,344	104,603	45,308	1,309,188	1,335,367	59,727	169,934	42,364	1,607,392
Average number of rooms a per private dwelling ..	5.32	3.37	4.16	2.15	5.00	5.43	3.24	4.00	2.13	5.12

(a) Includes kitchen and permanently enclosed sleep-out, but does not include bathroom, pantry, laundry or storehouse, unless generally used for sleeping. (b) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (c) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (d) See footnote (d) to table on p. 403. (e) See text on p. 400 regarding comparability as between censuses.



OCCUPIED PRIVATE DWELLINGS BY NUMBER OF ROOMS: AUSTRALIA,  
1954 AND 1961—continued

Number of rooms(a) per dwelling	Census, 30th June, 1954					Census, 30th June, 1961				
	Private house (b)	Share of private house (c)	Flat (d)	Other	Total private dwell- ings	Private house (b)	Share of private house (c)	Flat (d)	Other	Total private dwell- ings
OTHER URBAN(e)										
1 .. .. .	5,693	2,232	81	1,068	9,074	4,513	1,159	466	1,062	7,200
2 .. .. .	11,669	5,446	1,453	2,374	20,942	8,349	3,472	4,706	2,440	18,967
3 .. .. .	20,429	5,854	5,121	1,907	33,311	18,636	4,078	12,039	1,892	36,645
4 .. .. .	98,504	4,254	7,910	899	111,567	106,956	3,277	14,184	823	125,240
5 .. .. .	186,088	2,565	4,098	293	193,044	253,723	2,319	7,296	270	263,608
6 .. .. .	132,573	1,399	1,522	84	135,578	167,499	377	2,891	40	170,807
7 .. .. .	41,366	485	392	24	42,267	54,222	87	855	23	55,187
8 .. .. .	13,373	163	112	6	13,654	17,102	44	327	5	17,478
9 .. .. .	4,336	56	28	6	4,426	5,194	15	124	5	5,338
10 and over ..	3,208	32	12	3	3,255	3,713	10	22	3	3,748
Not stated ..	1,165	261	55	80	1,561	1,503	410	224	180	2,317
Total Private Dwellings ..	518,404	22,747	20,784	6,744	568,679	641,410	15,248	43,134	6,743	706,535
Average number of rooms a per private dwelling ..	5.18	3.31	4.03	2.61	5.04	5.29	3.27	3.88	2.55	5.13
RURAL(e)										
1 .. .. .	12,976	544	10	82	13,612	9,768	303	94	79	10,244
2 .. .. .	16,271	1,297	157	175	17,900	11,981	809	540	141	13,471
3 .. .. .	27,458	1,698	535	207	29,898	22,551	1,160	1,223	155	25,089
4 .. .. .	89,397	1,553	727	175	91,852	76,508	1,101	1,348	111	79,068
5 .. .. .	128,313	987	382	52	129,734	134,095	748	760	35	135,638
6 .. .. .	99,843	530	157	9	100,539	108,656	165	311	7	109,139
7 .. .. .	43,694	208	35	1	43,938	50,621	57	125	1	50,804
8 .. .. .	19,111	98	9	2	19,220	22,681	24	51	..	22,756
9 .. .. .	7,532	21	3	..	7,556	9,160	12	23	..	9,195
10 and over ..	8,759	20	3	1	8,783	9,842	30	10	..	9,882
Not stated ..	2,328	169	15	10	2,522	2,526	166	33	7	2,732
Total Private Dwellings ..	455,682	7,125	2,033	714	465,554	458,389	4,575	4,518	536	468,018
Average number of rooms a per private dwelling ..	5.19	3.62	4.00	2.98	5.16	5.40	3.53	3.90	2.82	5.36
TOTAL, AUSTRALIA										
1 .. .. .	24,052	12,129	769	16,336	53,286	17,302	6,940	2,282	13,306	39,830
2 .. .. .	45,117	23,761	7,333	18,675	94,886	28,607	17,606	20,635	19,644	86,492
3 .. .. .	87,137	25,716	27,270	9,955	150,078	70,943	21,280	53,585	9,732	155,540
4 .. .. .	380,138	19,284	49,548	4,250	453,220	387,737	16,524	77,530	3,536	485,327
5 .. .. .	692,044	12,728	27,701	1,520	733,993	903,227	11,906	39,914	1,224	956,271
6 .. .. .	534,420	7,663	10,752	687	553,522	656,348	2,168	15,723	245	674,484
7 .. .. .	181,312	2,788	2,525	218	186,843	231,841	609	4,471	97	237,018
8 .. .. .	64,092	1,130	806	100	66,128	80,911	229	1,674	45	82,859
9 .. .. .	22,430	341	244	47	23,062	28,070	70	572	28	28,740
10 and over ..	20,808	163	98	18	21,087	24,199	102	161	39	24,501
Not stated ..	4,469	1,513	374	960	7,316	5,981	2,116	1,039	1,747	10,883
Total Private Dwellings ..	2,056,019	107,216	127,420	52,766	2,343,421	2,435,166	79,550	217,586	49,643	2,781,945
Average number of rooms a per private dwelling ..	5.26	3.38	4.14	2.22	5.04	5.39	3.26	3.97	2.20	5.16

(a) Includes kitchen and permanently enclosed sleep-out but does not include bathroom, pantry, laundry or storehouse, unless generally used for sleeping. (b) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (c) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (d) See footnote (d) to table on p. 403. (e) See text on p. 400 regarding comparability as between censuses.

(iii) *Number of Inmates.* A classification of occupied private dwellings according to the number of inmates is shown in the following table.

For Australia as a whole, at the 1961 Census, private houses with two inmates were most numerous, followed by those with four and three inmates in that order.

An increase of 21 per cent (93,418 houses) in the number of private houses occupied by two inmates brought this group from second position in 1954, to first position in 1961. Houses with two inmates in 1961 constituted 22 per cent. of the total number of occupied private houses in Australia, while private houses with four and three inmates constituted 21 per cent. and 19 per cent., respectively.

The greatest proportional increase since 1954 in the number of occupied private dwellings occurred in those with one inmate, the growth of 33.9 per cent. being due mainly to an increase of 34.5 per cent. in the number of private houses with one inmate and an increase of 108.3 per cent. in the number of flats with one inmate. The number of flats with two, three and four inmates showed increases of 66.7 per cent., 46.7 per cent. and 61.8 per cent. respectively since 1954. However, the comparison of figures for flats between 1954 and 1961 is affected by the classification as flats in 1961, of dwellings previously classified as private houses (see footnote (d) to table on p. 403).

At 30th June, 1961, dwellings with less than 6 inmates represented 86.4 per cent. of total occupied private dwellings compared with 87.2 per cent. in 1954.

#### OCCUPIED PRIVATE DWELLINGS BY NUMBER OF INMATES: AUSTRALIA, 1954 AND 1961

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS)

Number of inmates per dwelling	Census, 30th June, 1954					Census, 30th June, 1961				
	Private house (a)	Share of private house (b)	Flat (c)	Other	Total private dwellings	Private house (a)	Share of private house (b)	Flat (c)	Other	Total private dwellings

#### METROPOLITAN URBAN(d)

1 .. ..	62,022	16,509	19,345	19,203	117,079	93,645	12,994	38,288	20,353	165,280
2 .. ..	242,815	26,497	41,373	14,300	324,985	300,672	17,922	65,566	12,959	397,119
3 .. ..	241,859	16,400	23,793	6,356	288,408	265,970	12,305	33,205	5,104	316,584
4 .. ..	247,207	9,917	12,926	3,295	273,345	296,931	8,524	19,888	2,394	327,737
5 .. ..	153,006	4,449	4,743	1,229	163,427	196,257	4,201	8,249	948	209,655
6 .. ..	75,493	2,033	1,604	488	79,618	101,382	2,073	3,005	369	106,829
7 .. ..	33,245	891	549	218	34,903	44,857	958	1,143	135	47,093
8 .. ..	15,107	448	186	125	15,866	20,801	523	415	61	21,800
9 .. ..	5,983	115	55	53	6,206	7,979	132	104	21	8,236
10 and over ..	5,196	85	29	41	5,351	6,873	95	71	20	7,059
<b>Total Private Dwellings ..</b>	<b>1,081,933</b>	<b>77,344</b>	<b>104,603</b>	<b>45,308</b>	<b>1,309,188</b>	<b>1,335,367</b>	<b>59,727</b>	<b>169,934</b>	<b>42,364</b>	<b>1,607,392</b>
<b>Total Inmates</b>	<b>3,944,181</b>	<b>204,571</b>	<b>264,646</b>	<b>92,576</b>	<b>4,505,974</b>	<b>4,897,290</b>	<b>166,415</b>	<b>420,885</b>	<b>79,960</b>	<b>5,564,550</b>
<b>Average number of inmates per private dwelling ..</b>	<b>3.65</b>	<b>2.64</b>	<b>2.53</b>	<b>2.04</b>	<b>3.44</b>	<b>3.67</b>	<b>2.79</b>	<b>2.48</b>	<b>1.89</b>	<b>3.46</b>

(a) Includes houses, sheds, huts, etc. and shared private houses for which only one householder's schedule was received. (b) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (c) See footnote (d) to table on p. 403. (d) See text on p. 400 regarding comparability as between censuses.

**OCCUPIED PRIVATE DWELLINGS BY NUMBER OF INMATES: AUSTRALIA,  
1954 AND 1961—continued**

Number of inmates per dwelling	Census, 30th June, 1954					Census, 30th June, 1961				
	Private house (a)	Share of private house (b)	Flat (c)	Other	Total private dwellings	Private house (a)	Share of private house (b)	Flat (c)	Other	Total private dwellings
<b>OTHER URBAN(d)</b>										
1 .. ..	39,178	4,609	2,945	1,883	48,615	55,561	3,475	7,754	2,579	69,369
2 .. ..	112,952	7,231	7,333	2,211	129,727	143,974	4,521	15,355	2,029	165,879
3 .. ..	107,678	4,986	5,085	1,389	119,138	120,090	2,987	8,928	1,085	133,090
4 .. ..	110,022	3,056	3,161	756	116,995	130,008	2,039	6,025	584	138,656
5 .. ..	73,416	1,479	1,383	278	76,556	93,958	1,109	2,918	273	98,258
6 .. ..	39,436	768	557	132	40,893	52,500	596	1,276	113	54,485
7 .. ..	18,961	353	211	51	19,576	24,629	285	532	40	25,486
8 .. ..	9,348	166	60	21	9,595	11,891	162	230	27	12,310
9 .. ..	3,777	56	32	11	3,876	4,675	48	60	8	4,791
10 and over ..	3,636	43	17	12	3,708	4,124	26	56	5	4,211
Total Private Dwellings ..	518,404	22,747	20,784	6,744	568,679	641,410	15,248	45,134	6,743	706,535
Total Inmates	1,913,307	63,029	58,201	16,430	2,050,967	2,363,136	42,772	118,317	14,893	2,539,118
Average number of inmates per private dwelling ..	3.69	2.77	2.80	2.44	3.61	3.68	2.81	2.74	2.21	3.59
<b>RURAL(d)</b>										
1 .. ..	46,108	964	217	105	47,394	48,943	747	848	173	50,711
2 .. ..	88,412	1,898	597	167	91,074	92,951	1,129	1,273	140	95,493
3 .. ..	86,142	1,534	473	159	88,308	79,834	882	918	78	81,712
4 .. ..	89,458	1,285	381	134	91,258	85,286	809	725	75	86,895
5 .. ..	65,284	745	209	71	66,309	66,658	490	404	43	67,595
6 .. ..	39,762	370	102	34	40,268	42,444	272	195	17	42,928
7 .. ..	20,749	185	36	25	20,995	21,915	124	104	5	22,148
8 .. ..	10,788	90	10	14	10,902	11,404	80	38	3	11,525
9 .. ..	4,508	36	5	3	4,552	4,625	24	9	1	4,659
10 and over ..	4,471	18	3	2	4,494	4,329	18	4	1	4,352
Total Private Dwellings ..	455,682	7,125	2,033	714	465,554	458,389	4,575	4,518	536	468,018
Total Inmates	1,725,677	22,979	6,418	2,347	1,757,421	1,737,170	14,879	13,394	1,383	1,766,826
Average number of inmates per private dwelling ..	3.79	3.23	3.16	3.29	3.77	3.79	3.25	2.96	2.58	3.78
<b>TOTAL, AUSTRALIA</b>										
1 .. ..	147,308	22,082	22,507	21,191	213,088	198,149	17,216	46,890	23,105	285,360
2 .. ..	444,179	35,626	49,303	16,678	545,786	537,597	23,572	82,194	15,128	658,491
3 .. ..	435,679	22,920	29,351	7,904	495,854	465,894	16,174	43,051	6,267	531,386
4 .. ..	446,687	14,258	16,468	4,185	481,598	512,225	11,372	26,638	3,053	553,288
5 .. ..	291,706	6,673	6,335	1,578	306,292	356,873	5,800	11,571	1,264	375,508
6 .. ..	154,691	3,171	2,263	654	160,779	196,326	2,941	4,476	499	204,242
7 .. ..	72,955	1,429	796	294	75,474	91,401	1,367	1,779	180	94,727
8 .. ..	35,243	704	256	160	36,363	44,096	765	683	91	45,635
9 .. ..	14,268	207	92	67	14,634	17,279	204	173	30	17,686
10 and over ..	13,303	146	49	55	13,553	15,326	139	131	26	15,622
Total Private Dwellings ..	2,056,019	107,216	127,420	52,766	2,343,421	2,435,166	79,550	217,586	49,643	2,781,945
Total Inmates	7,583,165	290,579	329,265	111,353	8,314,362	8,997,596	224,066	552,596	96,236	9,870,494
Average number of inmates per private dwelling ..	3.69	2.71	2.58	2.11	3.55	3.69	2.82	2.54	1.94	3.55

(a) Includes houses, sheds, huts, etc., and shared private houses for which only one household's schedule was received. (b) Portion of a shared private house which is occupied separately and for which portion a separate household's schedule was received. (c) See footnote (d) to table on p. 403. (d) See text on p. 400 regarding comparability as between censuses.

(iv) *Nature of Occupancy.* At the 1961 Census, 52.0 per cent. of occupied private houses in Australia for which particulars were supplied were occupied by owners, 25.1 per cent. by purchasers by instalments, 20.7 per cent. by tenants, and 2.2 per cent. by others. The corresponding percentages in 1954 were—owners, 52.5 per cent.; purchasers by instalments, 16.8 per cent.; tenants, 28.1 per cent.; and others, 2.6 per cent. Owner-occupied houses in Australia increased by 17.3 per cent. between 1954 and 1961, and those being purchased by instalments by 76.8 per cent., the increase in these two groups combined being nearly 32 per cent., while tenant-occupied houses decreased by 12.4 per cent.

In the metropolitan areas, 80.6 per cent. of all occupied private houses were either owner-occupied or being purchased by instalments, as compared with 74.6 per cent. in the other urban areas and 70.2 per cent. in the rural areas.

Tenants occupied by far the greater proportion of flats and other private dwellings.

### OCCUPIED PRIVATE DWELLINGS BY NATURE OF OCCUPANCY: AUSTRALIA, 1954 AND 1961

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS)

Nature of occupancy	Census, 30th June, 1954					Census, 30th June, 1961				
	Private house (a)	Share of private house (b)	Flat (c)	Other	Total, private dwellings	Private house (a)	Share of private house (b)	Flat (c)	Other	Total private dwellings
<b>METROPOLITAN URBAN(d)</b>										
Owner ..	512,632	19,525	12,272	1,899	546,328	635,769	16,040	28,606	2,269	682,684
Purchaser by instalments ..	249,018	5,777	1,503	481	256,779	437,431	6,864	6,363	761	451,419
Tenant (Governmental housing)(e) ..	48,011	379	4,127	1,795	54,312	62,589	393	12,179	425	75,586
Tenant ..	259,955	50,133	85,530	40,267	435,885	185,273	35,017	119,603	37,897	377,790
Caretaker ..	6,617	449	681	391	8,138	7,291	411	1,942	392	10,036
Other methods of occupancy ..	3,682	448	322	211	4,663	3,684	380	756	201	5,021
Not stated ..	2,018	633	168	264	3,083	3,330	622	485	419	4,856
<b>Total Private Dwellings ..</b>	<b>1,081,933</b>	<b>77,344</b>	<b>104,605</b>	<b>45,308</b>	<b>1,309,188</b>	<b>1,335,367</b>	<b>59,727</b>	<b>169,934</b>	<b>42,364</b>	<b>1,607,392</b>
<b>OTHER URBAN(d)</b>										
Owner ..	279,042	6,469	3,271	426	289,208	334,748	4,613	6,469	503	346,333
Purchaser by instalments ..	77,063	1,158	280	70	78,571	141,850	1,176	1,085	98	144,209
Tenant (Governmental housing)(e) ..	27,414	115	712	83	28,324	36,954	80	1,726	154	38,914
Tenant ..	122,146	14,367	16,214	6,043	158,770	114,963	8,877	32,437	5,846	162,123
Caretaker ..	5,715	186	184	67	6,152	6,121	136	679	66	7,002
Other methods of occupancy ..	4,440	150	81	28	4,699	4,133	115	581	31	4,860
Not stated ..	2,584	302	42	27	2,955	2,641	251	157	45	3,094
<b>Total Private Dwellings ..</b>	<b>518,404</b>	<b>22,747</b>	<b>20,784</b>	<b>6,744</b>	<b>568,679</b>	<b>641,410</b>	<b>15,248</b>	<b>43,134</b>	<b>6,743</b>	<b>706,515</b>

(a) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received.  
 (b) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received.  
 (c) See footnote (d) to table on p. 403.  
 (d) See text on p. 400 regarding comparability as between Censuses.  
 (e) At the 1954 Census, figures were compiled from the answers furnished in response to the instruction on the householder's schedule "Tenant paying rent to a Government Authority to write 'Tenant (G)'". At the 1961 census, householders were instructed on the schedule to write "Tenant (G)" if they paid rent to the Governmental Housing Authority in their State or Territory.

**OCCUPIED PRIVATE DWELLINGS BY NATURE OF OCCUPANCY:  
AUSTRALIA, 1954 AND 1961—continued**

Nature of occupancy	Census, 30th June, 1954					Census, 30th June, 1961				
	Private house (a)	Share of private house (b)	Flat (c)	Other	Total, private dwellings	Private house (a)	Share of private house (b)	Flat (c)	Other	Total private dwellings
<b>RURAL (d)</b>										
Owner .. .. .	283,022	2,778	431	47	286,278	289,704	1,919	923	45	292,591
Purchaser by instalments .. .. .	17,544	164	33	2	17,743	28,163	135	81	7	28,386
Tenant (Governmental housing)(e) .. .. .	16,543	66	96	35	16,740	2,544	15	20	..	2,579
Tenant .. .. .	99,712	3,464	1,398	625	105,199	100,253	2,049	3,070	452	105,824
Caretaker .. .. .	12,975	137	23	2	13,137	12,570	112	192	10	12,884
Other methods of occupancy .. .. .	19,163	271	32	2	19,468	19,510	180	186	12	19,888
Not stated .. .. .	6,723	245	20	1	6,989	5,645	165	46	10	5,866
<b>Total Private Dwellings .. .. .</b>	<b>455,682</b>	<b>7,125</b>	<b>2,033</b>	<b>714</b>	<b>465,554</b>	<b>458,389</b>	<b>4,575</b>	<b>4,518</b>	<b>536</b>	<b>463,018</b>
<b>TOTAL, AUSTRALIA</b>										
Owner .. .. .	1,074,696	28,772	15,974	2,372	1,121,814	1,260,221	22,572	35,998	2,817	1,321,608
Purchaser by instalments .. .. .	343,625	7,099	1,816	553	353,093	607,444	8,175	7,529	866	624,014
Tenant (Governmental housing)(e) .. .. .	91,968	560	4,935	1,913	99,376	102,087	488	13,925	579	117,079
Tenant .. .. .	481,813	67,964	103,142	46,935	699,854	400,489	45,943	155,110	44,195	645,737
Caretaker .. .. .	25,307	772	888	460	27,427	25,982	659	2,813	468	29,922
Other methods of occupancy .. .. .	27,285	869	435	241	28,830	27,327	675	1,523	244	29,769
Not stated .. .. .	11,325	1,180	230	292	13,027	11,616	1,038	688	474	13,816
<b>Total Private Dwellings .. .. .</b>	<b>2,056,019</b>	<b>107,216</b>	<b>127,420</b>	<b>52,766</b>	<b>2,343,421</b>	<b>2,435,166</b>	<b>79,550</b>	<b>217,586</b>	<b>49,643</b>	<b>2,781,945</b>

(a) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received.  
 (b) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received.  
 (c) See footnote (d) to table on p. 403.  
 (d) See text on p. 400 regarding comparability as between censuses.  
 (e) At the 1954 Census, figures were compiled from the answers furnished in response to the instruction on the householder's schedule: "Tenant paying rent to a Government Authority to write 'Tenant (G)'". At the 1961 Census, householders were instructed on the schedule to write "Tenant (G)" if they paid rent to the Governmental Housing Authority in their State or Territory.

(v) *Weekly Rent—Tenanted Private Dwellings.* The following table shows tenanted private dwellings in the metropolitan urban, other urban and rural areas of Australia classified according to weekly rent (unfurnished).

Information tabulated concerning rents was restricted to the actual rent paid per week by tenants for unfurnished private dwellings. Particulars of rents shown in the following tables are therefore on an *unfurnished* basis. Dwellings shown as rent "Not stated" include those whose rents were shown on householders' schedules on a *furnished* basis, and those whose rents were not applicable (e.g., for shop and dwelling combined). In this section information on "tenanted private dwellings" *excludes particulars of dwellings occupied by "Tenants (Governmental Housing)" in each State*, i.e. those householders who at the 1954 Census furnished answers in response to the instruction on the census householder's schedule "Tenant paying rent to a Government Authority to write 'Tenant (G)'" and those householders who at the 1961 Census furnished answers in response to the instruction on the census householder's schedule "Tenant paying rent to the Governmental Housing Authority in their State to write 'Tenant (G)'". *For the Australian Capital Territory and the Northern Territory particulars of all tenanted private dwellings are included.*

**TENANTED PRIVATE DWELLINGS BY WEEKLY RENT (UNFURNISHED):  
AUSTRALIA, 1954 AND 1961**

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS)

Weekly rent (unfurnished)	Census, 30th June, 1954(a)					Census, 30th June, 1961(a)				
	Private house (b)	Share of private house (c)	Flat (d)	Other	Total tenanted private dwellings	Private house (b)	Share of private house (c)	Flat (d)	Other	Total tenanted private dwellings
Under 20s. ..	26,468	3,019	712	1,126	31,325	5,034	327	547	268	6,176
20s. and under 30s. ..	69,583	6,671	4,834	2,335	83,423	14,935	1,030	1,660	634	18,259
30s. " " 40s. ..	63,135	6,871	14,703	2,378	87,087	20,086	1,340	3,862	993	26,281
40s. " " 50s. ..	34,047	4,517	16,250	1,470	56,284	21,405	1,909	7,448	1,108	31,870
50s. " " 60s. ..	14,278	2,327	10,642	855	28,102	16,798	1,413	8,690	789	27,690
60s. " " 70s. ..	9,327	1,523	6,294	584	17,728	16,333	2,126	7,966	857	27,282
70s. " " 80s. ..	4,287	602	3,163	286	8,338	9,248	1,391	5,388	625	16,652
80s. " " 90s. ..	2,679	421	2,199	167	5,466	8,411	1,494	4,989	589	15,483
90s. " " 100s. ..	940	116	1,283	66	2,405	4,403	779	3,283	374	8,839
100s. and over ..	2,877	282	3,398	165	6,722	32,387	3,676	34,420	1,459	71,942
Not stated(f) ..	36,062	23,900	22,259	30,844	113,065	42,491	19,646	42,707	30,209	135,053
<b>Total Tenanted Private Dwellings ..</b>	<b>263,683</b>	<b>50,249</b>	<b>85,737</b>	<b>40,276</b>	<b>439,945</b>	<b>191,531</b>	<b>35,131</b>	<b>120,960</b>	<b>37,905</b>	<b>385,527</b>
<b>Average weekly rent (unfurnished) per private dwelling ..</b>	<b>s. d. 34 10</b>	<b>s. d. 35 8</b>	<b>s. d. 51 11</b>	<b>s. d. 37 4</b>	<b>s. d. 38 3</b>	<b>s. d. 68 10</b>	<b>s. d. 70 10</b>	<b>s. d. 100 4</b>	<b>s. d. 65 5</b>	<b>s. d. 78 8</b>

**METROPOLITAN URBAN(e)**

Under 20s. ..	26,468	3,019	712	1,126	31,325	5,034	327	547	268	6,176
20s. and under 30s. ..	69,583	6,671	4,834	2,335	83,423	14,935	1,030	1,660	634	18,259
30s. " " 40s. ..	63,135	6,871	14,703	2,378	87,087	20,086	1,340	3,862	993	26,281
40s. " " 50s. ..	34,047	4,517	16,250	1,470	56,284	21,405	1,909	7,448	1,108	31,870
50s. " " 60s. ..	14,278	2,327	10,642	855	28,102	16,798	1,413	8,690	789	27,690
60s. " " 70s. ..	9,327	1,523	6,294	584	17,728	16,333	2,126	7,966	857	27,282
70s. " " 80s. ..	4,287	602	3,163	286	8,338	9,248	1,391	5,388	625	16,652
80s. " " 90s. ..	2,679	421	2,199	167	5,466	8,411	1,494	4,989	589	15,483
90s. " " 100s. ..	940	116	1,283	66	2,405	4,403	779	3,283	374	8,839
100s. and over ..	2,877	282	3,398	165	6,722	32,387	3,676	34,420	1,459	71,942
Not stated(f) ..	36,062	23,900	22,259	30,844	113,065	42,491	19,646	42,707	30,209	135,053
<b>Total Tenanted Private Dwellings ..</b>	<b>263,683</b>	<b>50,249</b>	<b>85,737</b>	<b>40,276</b>	<b>439,945</b>	<b>191,531</b>	<b>35,131</b>	<b>120,960</b>	<b>37,905</b>	<b>385,527</b>
<b>Average weekly rent (unfurnished) per private dwelling ..</b>	<b>s. d. 34 10</b>	<b>s. d. 35 8</b>	<b>s. d. 51 11</b>	<b>s. d. 37 4</b>	<b>s. d. 38 3</b>	<b>s. d. 68 10</b>	<b>s. d. 70 10</b>	<b>s. d. 100 4</b>	<b>s. d. 65 5</b>	<b>s. d. 78 8</b>

**OTHER URBAN(e)**

Under 20s. ..	18,645	1,363	366	363	20,737	5,935	205	349	120	6,609
20s. and under 30s. ..	29,759	2,055	1,508	576	33,898	11,905	464	886	195	13,450
30s. " " 40s. ..	24,192	1,861	2,347	530	28,930	12,209	505	1,339	252	14,305
40s. " " 50s. ..	13,140	1,181	1,834	321	16,476	14,079	618	1,779	293	16,769
50s. " " 60s. ..	6,649	578	1,181	192	8,600	11,001	532	1,740	261	13,534
60s. " " 70s. ..	4,462	287	659	97	5,505	11,162	588	2,099	280	14,129
70s. " " 80s. ..	1,938	75	391	37	2,441	7,450	375	1,658	180	9,663
80s. " " 90s. ..	824	56	166	13	1,059	5,927	308	1,601	125	7,961
90s. " " 100s. ..	264	19	69	4	356	2,600	127	894	58	3,679
100s. and over ..	553	28	123	12	716	9,326	351	3,812	134	13,623
Not stated(f) ..	22,188	6,865	7,603	3,903	40,559	24,428	4,813	16,331	3,952	49,524
<b>Total Tenanted Private Dwellings ..</b>	<b>122,614</b>	<b>14,368</b>	<b>16,247</b>	<b>6,048</b>	<b>159,277</b>	<b>116,022</b>	<b>8,886</b>	<b>32,488</b>	<b>5,850</b>	<b>163,246</b>
<b>Average weekly rent (unfurnished) per private dwelling ..</b>	<b>s. d. 31 11</b>	<b>s. d. 31 1</b>	<b>s. d. 41 10</b>	<b>s. d. 32 6</b>	<b>s. d. 32 8</b>	<b>s. d. 54 6</b>	<b>s. d. 54 3</b>	<b>s. d. 71 11</b>	<b>s. d. 52 11</b>	<b>s. d. 56 11</b>

(a) These figures exclude dwellings occupied by "Tenants" (Governmental Housing) except those in the Northern Territory and the Australian Capital Territory. (b) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (c) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (d) See footnote (d) to table on p. 403. (e) See text on p. 400 regarding comparability as between censuses. (f) Includes tenanted dwellings which were rent-free, those rented on a furnished basis, and those for which the rents were not applicable (e.g. for shop and dwelling combined).

**TENANTED PRIVATE DWELLINGS BY WEEKLY RENT (UNFURNISHED):**  
**AUSTRALIA, 1954 AND 1961—continued**

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS)

Weekly rent (unfurnished)	Census, 30th June, 1954(a)					Census, 30th June, 1961(o)				
	Private house (b)	Share of private house (c)	Flat (d)	Other	Total tenanted private dwellings	Private house (b)	Share of private house (c)	Flat (d)	Other	Total tenanted private dwellings
<b>RURAL(e)</b>										
Under 20s. ..	25,979	578	113	84	26,754	13,960	135	146	38	14,279
20s. and under 30s. ..	17,454	429	217	108	18,248	14,891	156	252	31	15,330
30s. " " 40s. ..	7,292	239	137	47	7,715	9,627	97	223	23	9,970
40s. " " 50s. ..	3,682	129	96	24	3,931	9,173	127	255	30	9,585
50s. " " 60s. ..	1,560	58	51	14	1,683	4,338	71	168	18	4,595
60s. " " 70s. ..	981	20	27	5	1,033	3,684	65	174	21	3,944
70s. " " 80s. ..	359	8	7	1	375	1,492	22	101	5	1,620
80s. " " 90s. ..	248	4	5	2	259	1,253	22	79	4	1,358
90s. " " 100s. ..	75	6	2	..	77	467	8	32	1	508
100s. and over ..	206	6	..	..	214	1,770	27	74	3	1,874
Not stated(f) ..	42,003	1,991	745	340	45,079	39,889	1,327	1,567	278	43,061
<b>Total Tenanted Private Dwellings ..</b>	<b>99,879</b>	<b>3,464</b>	<b>1,400</b>	<b>625</b>	<b>105,368</b>	<b>100,544</b>	<b>2,057</b>	<b>3,071</b>	<b>452</b>	<b>106,124</b>
<b>Average weekly rent (unfurnished) per private dwelling ..</b>	<b>s. d. 22 0</b>	<b>s. d. 23 4</b>	<b>s. d. 30 10</b>	<b>s. d. 25 2</b>	<b>s. d. 22 2</b>	<b>s. d. 34 11</b>	<b>s. d. 37 4</b>	<b>s. d. 46 4</b>	<b>s. d. 36 6</b>	<b>s. d. 35 2</b>

**TOTAL, AUSTRALIA**

Under 20s. ..	71,092	4,960	1,191	1,573	78,816	24,929	667	1,042	426	27,064
20s. and under 30s. ..	116,836	9,155	6,559	3,019	135,569	41,731	1,650	2,798	860	47,039
30s. " " 40s. ..	94,619	8,971	17,187	2,955	123,732	41,922	1,942	5,424	1,268	50,556
40s. " " 50s. ..	50,869	5,827	18,180	1,815	76,691	44,657	2,654	9,482	1,431	58,224
50s. " " 60s. ..	22,487	2,963	11,874	1,061	38,385	32,137	2,016	10,598	1,068	45,819
60s. " " 70s. ..	14,770	1,830	6,980	586	24,266	31,179	2,779	10,239	1,158	45,355
70s. " " 80s. ..	6,584	685	3,561	324	11,154	18,190	1,788	7,147	810	27,935
80s. " " 90s. ..	3,751	481	2,370	182	6,784	15,591	1,824	6,669	718	24,802
90s. " " 100s. ..	1,279	137	1,352	70	2,838	7,470	914	4,209	433	13,026
100s. and over ..	3,636	316	3,523	177	7,652	43,483	4,054	38,306	1,596	87,439
Not stated(f) ..	100,253	32,756	30,607	35,087	198,703	106,808	25,786	60,605	34,439	227,638
<b>Total Tenanted Private Dwellings ..</b>	<b>486,176</b>	<b>68,081</b>	<b>103,384</b>	<b>46,949</b>	<b>704,590</b>	<b>408,097</b>	<b>46,074</b>	<b>156,519</b>	<b>44,207</b>	<b>654,897</b>
<b>Average weekly rent (unfurnished) per private dwelling ..</b>	<b>s. d. 32 2</b>	<b>s. d. 34 2</b>	<b>s. d. 50 6</b>	<b>s. d. 36 2</b>	<b>s. d. 35 0</b>	<b>s. d. 57 7</b>	<b>s. d. 66 3</b>	<b>s. d. 94 9</b>	<b>s. d. 62 5</b>	<b>s. d. 66 6</b>

(a) These figures exclude dwellings occupied by "Tenants" (Governmental Housing) except those in the Northern Territory and the Australian Capital Territory. (b) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (c) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (d) See footnote (d) to table on p. 403. (e) See text on p. 400 regarding comparability as between censuses. (f) Includes tenanted dwellings which were rent-free, those rented on a furnished basis, and those for which the rents were not applicable (e.g., for shop and dwelling combined).

At the 1954 Census, nearly 55 per cent. of the tenanted private houses in Australia for which unfurnished rents were stated had weekly rentals of between 20s. and 40s.; at the 1961 Census, only 28 per cent. were within these limits. In 1954, 18 per cent. had rentals below 20s. and 27 per cent. above 40s. In 1961, 8 per cent. had rentals below 20s. and 64 per cent. above 40s. At the 1961 Census, 31 per cent. of the flats in Australia had rentals of between 40s. and 70s., 10 per cent. were below this range, and 59 per cent. above it. At the 1954 Census, the corresponding proportions were:—51 per cent., 34 per cent. and 15 per cent. In 1961, 14 per cent. of tenanted private houses and 40 per cent. of tenanted flats were in the rental range 100s. and over. Dwellings whose rents were not stated were excluded in obtaining these proportions.

The average rentals shown in this table for all tenanted private dwellings in Australia at the 1961 Census were 90 per cent. higher than in 1954 (79 per cent. higher for houses and 88 per cent. higher for flats). Metropolitan rentals in 1961 were higher by 106 per cent., 98 per cent. and 93 per cent., respectively, than in 1954.

In all such comparisons as these, the difference in basis between the 1954 and 1961 Censuses, referred to in the opening paragraph (p. 410), and also the differences in the urban and rural divisions (*see* p. 400), should be borne in mind.

**AVERAGE WEEKLY RENT PER ROOM OF TENANTED PRIVATE HOUSES(a),  
THREE TO SIX ROOMS, WITH WALLS OF WOOD, BRICK OR STONE:  
AUSTRALIA, 1954 AND 1961**

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS)

Particulars	Census, 30th June, 1954				Census, 30th June, 1961				In-crease, Aus-tralia, 1954-61
	Urban(b)		Rural (b)	Total, Aus-tralia	Urban(b)		Rural (b)	Total, Aus-tralia	
	Metro-politan	Other			Metro-politan	Other			
Private houses (a) with walls of—	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Wood—									
3 rooms .. ..	7 3	7 11	5 10	7 1	16 11	13 2	8 8	13 2	6 1
4 " .. ..	6 9	7 0	4 10	6 4	15 3	11 9	7 5	11 8	5 4
5 " .. ..	6 8	6 4	4 6	6 1	14 4	10 9	6 11	10 9	4 8
6 " .. ..	5 10	5 5	3 11	5 3	12 8	9 6	6 0	9 5	4 2
3 to 6 rooms ..	6 6	6 3	4 6	5 11	14 2	10 7	6 10	10 7	4 8
Brick or stone—									
3 rooms .. ..	8 3	9 4	6 8	8 3	16 7	15 9	10 7	16 3	8 0
4 " .. ..	7 10	7 2	5 1	7 8	15 2	12 2	7 11	14 6	6 10
5 " .. ..	7 2	6 8	4 9	7 0	14 0	11 0	7 7	13 1	6 1
6 " .. ..	6 9	6 1	4 3	6 6	12 5	10 2	6 8	11 7	5 1
3 to 6 rooms ..	7 3	6 8	4 9	7 1	13 11	11 0	7 4	13 1	6 0
Wood, brick or stone—									
3 rooms .. ..	7 11	8 4	6 0	7 9	16 9	13 9	8 11	14 9	7 0
4 " .. ..	7 6	7 1	4 11	7 1	15 2	11 10	7 6	13 0	5 11
5 " .. ..	7 0	6 5	4 6	6 7	14 1	10 10	7 0	11 10	5 3
6 " .. ..	6 5	5 7	4 0	5 11	12 6	9 9	6 1	10 6	4 7
3 to 6 rooms ..	7 0	6 5	4 7	6 7	14 0	10 9	6 11	11 9	5 2

(a) These figures exclude tenanted private houses occupied by "Tenants (Governmental Housing)" in 1954, and those occupied by "Tenants (State Governmental Housing Authority)" in 1961. However, the data used for the Australian Capital Territory and Northern Territory include particulars of such dwellings. (b) *See* text on p. 400 regarding comparability as between censuses.

(vi) *Date of Building.* The numbers of occupied private dwellings in Australia at the Census of 30th June, 1961, classified according to date of building from replies given to the relevant question at the 1961 Census, are shown below.



OCCUPIED PRIVATE DWELLINGS BY DATE OF BUILDING: AUSTRALIA,  
CENSUS, 30TH JUNE, 1961

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS)

Date of building	Class of dwelling				Division			Total, Aus- tralia
	Private house (a)	Share of private house	Flat	Other	Urban		Rural	
					Metro- politan	Other		
<i>Before 1st July, 1954</i> ..	1,861,261	68,824	168,615	44,358	1,231,462	537,953	373,643	2,143,058
<i>After 30th June, 1954—</i>								
1954 (July–Dec.) ..	30,398	397	1,121	94	19,116	8,375	4,519	32,010
1955 .. ..	80,293	975	3,375	194	49,571	22,374	12,892	84,837
1956 .. ..	73,095	999	3,937	213	46,215	20,398	11,631	78,244
1957 .. ..	68,340	939	3,596	351	43,353	18,953	10,920	73,226
1958 .. ..	78,573	1,143	5,603	381	51,970	22,203	11,527	85,700
1959 .. ..	81,110	1,220	7,657	366	54,747	24,002	11,604	90,353
1960 .. ..	82,968	1,231	11,117	234	57,188	25,705	12,657	95,550
1961 (Jan.–June) ..	30,618	367	4,124	130	19,943	9,466	5,830	35,239
Not stated(b) ..	18,131	730	2,841	491	12,484	6,085	3,624	22,193
<i>Total, after 30th June, 1954</i> ..	543,526	8,001	43,371	2,454	354,587	157,561	85,204	597,352
Other not stated ..	30,379	2,725	5,600	2,831	21,343	11,021	9,171	41,535
<b>Grand Total</b> ..	<b>2,435,166</b>	<b>79,550</b>	<b>217,586</b>	<b>49,643</b>	<b>1,607,392</b>	<b>706,535</b>	<b>468,018</b>	<b>2,781,945</b>

(a) Includes houses, sheds, huts, etc., and shared private houses for which only one household's schedule was received. (b) After 30th June, 1954, but year not stated.

NOTE.—The information above was derived from replies of occupants of dwellings at 30th June, 1961. For a number of reasons, the figures shown on the first line of the table do not agree with the number of dwellings by class recorded at the Census of 30th June, 1954, e.g., demolitions, conversion from one class of dwelling to another and errors of memory regarding date of building. Also, the figures are not precisely comparable with 1954 data because of changes in classification of dwellings adopted at the 1961 Census, as indicated in footnotes (d) and (e) to table on p. 433.

Of those occupied private dwellings in Australia where date of building was stated, 21.8 per cent. were built after 30th June, 1954. In the metropolitan urban division, 22.4 per cent. were built after 30th June, 1954, while in the other urban and rural divisions, the proportions were 22.7 per cent. and 18.6 per cent. respectively.

(vii) *Facilities, etc.* At the 1961 Census a question was asked regarding the facilities gas, electricity and television. Of those persons who answered the question on gas and electricity, 51.4 per cent. had electricity but not gas, and 45.2 per cent. had both electricity and gas, making a combined total of 96.6 per cent. with electricity. Occupied private dwellings with gas but not electricity constituted 0.2 per cent. In the metropolitan urban division 99.7 per cent. of occupied private dwellings had electricity, while in the other urban and rural divisions the proportions with electricity were 98.7 per cent. and 82.5 per cent. respectively. The proportion of private dwellings with both electricity and gas was 65.6 per cent. in metropolitan urban, 25.3 per cent. in other urban and 4.4 per cent. in rural.

Of the occupied private dwellings in Australia stated to have a television set, 81.2 per cent. were in the metropolitan urban division. In this division 64.6 per cent. of occupied private dwellings were stated to have a television set.

Similar information was not compiled for the 1954 Census, but a summary of information obtained at the 1947 Census was published on page 571 of Official Year Book No. 38.

# **OCCUPIED PRIVATE DWELLINGS BY FACILITIES: AUSTRALIA, CENSUS, 30th JUNE, 1961**

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS)

Facilities	Class of dwelling				Division			Total, Aus- tralia
	Private house (a)	Share of private house	Flat	Other	Urban		Rural	
					Metro- politan	Other		
Gas or electricity—								
With gas only ..	5,386	105	171	103	1,578	614	3,573	5,765
With electricity only ..	1,322,299	28,580	63,378	9,568	546,588	517,040	360,197	1,423,825
With gas and electricity	1,008,763	49,769	153,231	39,428	1,052,980	177,974	20,237	1,251,191
Without gas or elec- tricity ..	87,839	773	277	163	3,239	8,665	77,148	89,052
Not stated ..	10,879	323	529	381	3,007	2,242	6,863	12,112
 Total ..	 2,435,166	 79,550	 217,586	 49,643	 1,607,392	 706,535	 468,018	 2,781,945
 With television set(b) ..	 1,139,578	 30,126	 97,226	 11,731	 1,038,837	 168,875	 70,949	 1,278,661

(a) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (b) So stated in census schedules.

6. **Unoccupied Dwellings.**—The following table classifies unoccupied dwellings according to the reasons given by Census Collectors as to why the dwellings were unoccupied at Census date.

## **UNOCCUPIED DWELLINGS BY REASON WHY UNOCCUPIED: AUSTRALIA, CENSUS, 30th JUNE, 1961**

Reason why unoccupied	Urban		Rural	Total, Australia	
	Metro-politan	Other		Number	Per cent.
For sale or for renting .. ..	16,159	10,920	7,189	34,268	17.65
Holiday home, week-end, seasonal quarters .. ..	5,814	20,975	36,567	63,356	32.64
Occupants temporarily absent .. ..	22,896	16,196	14,984	54,076	27.86
To be demolished, condemned .. ..	1,828	912	1,800	4,540	2.34
Other and not stated .. ..	12,399	9,574	15,901	37,874	19.51
<b>Total ..</b>	<b>59,096</b>	<b>58,577</b>	<b>76,441</b>	<b>194,114</b>	<b>100.00</b>

## **§ 2. Building**

1. **General.**—(i) *Statistics of Building Approved.* Statistics of building approvals have been compiled from (a) permits issued by local government authorities in the areas subject to building control by these authorities, and (b) contracts let or work commenced and day labour projects authorized by governmental authorities. *They relate only to approvals for buildings as distinct from the construction of roads, bridges, railways, earth works, water*

*storage, etc.* Values shown represent the estimated cost when completed (excluding cost of land) of new buildings and alterations and additions to existing buildings. Additions of £5,000 and over are included with new buildings in all States except New South Wales, where they are included in "alterations and additions".

These statistics are available from the year 1953-54.

(ii) *Statistics of Building Commenced, Completed and Under Construction.* These relate to building by private contractors, Government authorities and owner-builders.

The following outlines the scope of the statistics: (a) *only the erection of new buildings as distinct from the construction of railways, bridges, earthworks, water storage, etc., is covered*; (b) major new additions to existing buildings are included as new buildings (for New South Wales, major alterations also are included as new building); (c) minor additions, alterations, renovations and repairs are excluded because of the difficulty of obtaining details of this work; (d) temporary dwellings are excluded; (e) figures for houses exclude flats and dwellings attached to other new buildings (the value of dwellings attached to other new buildings is included with the value of buildings to which they are attached); figures for flats include "home units"; (f) imported prefabricated houses are included; (g) details obtained from Government authorities and building contractors refer to all areas whereas details for owner-builders cover only areas subject to building control by Local Government Authorities.

The following definitions of terms used in this section are necessary for interpretation of the data presented.

*Government or private ownership.* A building is classified as "government" or "private" according to ownership at date of commencement. Thus "government" includes buildings erected for Commonwealth and State Governments, Semi-Governmental and Local Government authorities either by contractor or by day-labour, whether these buildings are for their own use, for rental or sale after completion. Houses erected for *particular persons* under Government sponsored home building schemes or with Government financial assistance are classified as "private".

*Owner-built.* An "owner-built" house is one actually erected or being erected by the owner or under the owner's direction without the services of a contractor who is responsible for the whole job.

*Contract-built.* Includes the operations of all building contractors and Government instrumentalities which undertake the erection of new buildings.

*Commenced.* A building is regarded as having been commenced when work on foundations has begun. Owing to the difficulty of defining the exact point that this represents in building operations, classifications made by informants may not be entirely uniform.

*Completed.* A building is regarded as having been completed when the contractor has fulfilled the terms of the contract. As with commencements, the classifications made may not be entirely uniform.

*Under construction.* A building is regarded as being under construction if it has been commenced but not completed, whether or not work on the building is actively proceeding.

*Values.* All values shown exclude the value of land and represent the estimated value of buildings on completion.

*Type of building.* Classification is according to the function a building is intended to serve. A building which is ancillary to other buildings or forms part of a group of related buildings is classified according to the major function of the building as a whole.

*Employment.* Figures relate to persons actually working on the jobs of contractors who undertake the erection of new buildings and of Government instrumentalities which erect new buildings on their own account. They include persons actually working on alterations, additions, repairs and maintenance when these jobs are undertaken by such contractors and instrumentalities.

Contractors are asked to give details of all persons working on their jobs on a specified day, including working principals, men working as or for sub-contractors and men temporarily laid off on account of weather. Because of the intermittent employment of various types of sub-contractors on any particular job, it is sometimes difficult for contractors and authorities to

provide precise particulars of the number of sub-contractors and the number of employees of sub-contractors working on their jobs on the specified day. This factor may cause some under-estimation by persons completing returns. On the other hand, because of frequent movement between jobs of some types of tradesmen (such as electricians) who may work on several jobs on the one day, a small element of duplication may occur.

The figures *exclude* persons working on owner-built houses, and employees of builders who undertake only alterations, additions, repairs and maintenance.

2. **New Houses.**—(i) *Approved, Commenced, Completed and Under Construction, 1961–62.* The next table provides a summary of the number of new houses approved, commenced, completed and under construction in each State and Territory.

A graph showing the number of new houses commenced, completed and under construction for the period 1949–50 to 1961–62, will be found on page 401.

**NEW HOUSES: NUMBER, 1961–62**  
(INCLUDING OWNER-BUILT HOUSES)

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Approved ..	26,893	18,114	9,932	7,976	6,291	2,527	404	1,432	73,569
Commenced ..	25,358	18,539	9,166	8,729	6,316	2,475	427	1,590	72,600
Completed ..	26,411	18,969	9,140	9,136	6,082	2,397	394	1,515	74,044
Under construction at end of year ..	11,434	11,580	2,739	4,599	3,250	1,656	303	1,153	36,714

(ii) *Approved, Government and Private, 1957–58 to 1961–62.* The following table shows the number of new houses approved in each State or Territory, according to government and private ownership.

**NEW HOUSES APPROVED: NUMBER**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
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**GOVERNMENT**

1957–58 ..	3,438	2,315	978	3,928	1,076	490	161	928	13,314
1958–59 ..	3,890	2,274	724	2,452	1,089	477	146	765	11,817
1959–60 ..	2,873	2,552	983	2,103	1,229	452	181	862	11,235
1960–61 ..	3,844	1,923	1,583	4,332	1,264	413	216	878	14,453
1961–62 ..	4,335	1,285	1,302	1,603	1,867	617	229	590	11,828

**PRIVATE**

1957–58 ..	24,499	20,404	8,876	4,859	4,418	1,980	160	259	65,455
1958–59 ..	27,026	20,552	9,041	5,376	4,173	1,929	228	394	68,719
1959–60 ..	29,365	22,033	9,645	6,234	4,853	2,094	259	526	75,009
1960–61 ..	24,410	16,509	8,776	5,614	4,421	1,860	174	639	62,403
1961–62 ..	22,558	16,829	8,630	6,373	4,424	1,910	175	842	61,741

**TOTAL**

1957–58 ..	27,937	22,719	9,854	8,787	5,494	2,470	321	1,187	78,769
1958–59 ..	30,916	22,826	9,765	7,828	5,262	2,406	374	1,159	80,536
1959–60 ..	32,238	24,585	10,628	8,337	6,082	2,546	440	1,388	86,244
1960–61 ..	28,254	18,432	10,359	9,946	5,685	2,273	390	1,517	76,856
1961–62 ..	26,893	18,114	9,932	7,976	6,291	2,527	404	1,432	73,569

(a) Includes flats for periods prior to 1961–62.

(iii) *Commenced, 1957-58 to 1961-62.* The number of new houses commenced in each State and Territory by contractors and owner-builders is shown in the following table.

### NEW HOUSES COMMENCED: NUMBER

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
<b>CONTRACT-BUILT(b)</b>									
1957-58 ..	15,729	15,654	5,559	5,523	4,284	1,291	227	975	49,242
1958-59 ..	18,582	17,188	6,387	6,873	4,231	1,508	257	993	56,019
1959-60 ..	19,784	19,372	7,349	8,032	5,067	1,491	321	1,286	62,702
1960-61 ..	19,950	15,261	7,364	8,448	4,902	1,405	321	962	58,613
1961-62 ..	18,764	15,292	7,715	8,136	5,491	1,643	369	1,388	58,798
<b>OWNER-BUILT</b>									
1957-58 ..	8,448	6,279	1,491	1,428	1,044	1,087	84	164	20,025
1958-59 ..	8,049	5,255	1,613	1,252	1,011	1,055	77	172	18,484
1959-60 ..	8,283	3,829	1,610	877	879	866	105	139	16,588
1960-61 ..	7,704	3,256	1,834	820	791	843	94	215	15,557
1961-62 ..	6,594	3,247	1,451	593	825	832	58	202	13,802
<b>TOTAL</b>									
1957-58 ..	24,177	21,933	7,050	6,951	5,328	2,378	311	1,139	69,267
1958-59 ..	26,631	22,443	8,000	8,125	5,242	2,563	334	1,165	74,503
1959-60 ..	28,067	23,201	8,959	8,909	5,946	2,357	426	1,425	79,290
1960-61 ..	27,654	18,517	9,198	9,268	5,693	2,248	415	1,177	74,170
1961-62 ..	25,358	18,539	9,166	8,729	6,316	2,475	427	1,590	72,600

(a) Includes flats for periods prior to 1961-62. (b) Includes operations of Government Authorities.

(iv) *Completed.* (a) *Contract-built and Owner-built, 1957-58 to 1961-62.* The following table shows the number of new houses completed in each State and Territory by contractors and owner-builders.

### NEW HOUSES COMPLETED: NUMBER

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
<b>CONTRACT-BUILT(b)</b>									
1957-58 ..	16,186	14,630	5,830	5,733	4,921	1,449	201	614	49,564
1958-59 ..	18,111	17,444	6,411	6,452	4,337	1,429	270	1,105	55,559
1959-60 ..	20,104	18,200	7,339	7,714	4,765	1,473	262	974	60,831
1960-61 ..	20,099	17,276	7,564	8,309	4,997	1,520	286	1,123	61,174
1961-62 ..	18,593	14,982	7,648	8,302	5,009	1,574	335	1,298	57,741
<b>OWNER-BUILT</b>									
1957-58 ..	8,928	6,737	1,527	1,873	1,275	1,117	74	84	21,615
1958-59 ..	9,984	6,885	1,795	1,691	1,509	1,148	86	140	23,238
1959-60 ..	9,434	5,957	1,662	1,262	1,232	1,002	79	171	20,799
1960-61 ..	9,679	4,818	1,827	1,067	976	967	117	150	19,601
1961-62 ..	7,818	3,987	1,492	834	1,073	823	59	217	16,303
<b>TOTAL</b>									
1957-58 ..	25,114	21,367	7,357	7,606	6,196	2,566	275	698	71,179
1958-59 ..	28,095	24,329	8,206	8,143	5,846	2,577	356	1,245	78,797
1959-60 ..	29,538	24,157	9,001	8,976	5,997	2,475	341	1,145	81,630
1960-61 ..	29,778	22,094	9,391	9,376	5,973	2,487	403	1,273	80,775
1961-62 ..	26,411	18,969	9,140	9,136	6,082	2,397	394	1,515	74,044

(a) Includes flats for periods prior to 1961-62. (b) Includes operations of Government Authorities.

(b) *Government and Private, 1957-58 to 1961-62.* The number of new houses completed in each State and Territory according to government and private ownership is shown in the following table.

## NEW HOUSES COMPLETED: NUMBER

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
GOVERNMENT									
1957-58 ..	3,926	2,129	1,089	2,819	1,782	611	137	522	13,015
1958-59 ..	3,688	2,313	1,366	2,831	1,150	506	169	976	12,999
1959-60 ..	3,544	2,081	1,338	2,868	1,112	443	146	702	12,234
1960-61 ..	3,238	1,710	1,697	3,002	1,272	473	178	729	12,299
1961-62 ..	4,170	1,903	1,747	3,123	1,404	547	252	812	13,958
PRIVATE									
1957-58 ..	21,188	19,238	6,268	4,787	4,414	1,955	138	176	58,164
1958-59 ..	24,407	22,016	6,840	5,312	4,696	2,071	187	269	65,798
1959-60 ..	25,994	22,076	7,663	6,108	4,885	2,032	195	443	69,396
1960-61 ..	26,540	20,384	7,694	6,374	4,701	2,014	225	544	68,476
1961-62 ..	22,241	17,066	7,393	6,013	4,678	1,850	142	703	60,086
TOTAL									
1957-58 ..	25,114	21,367	7,357	7,606	6,196	2,566	275	698	71,179
1958-59 ..	28,095	24,329	8,206	8,143	5,846	2,577	356	1,245	78,797
1959-60 ..	29,538	24,157	9,001	8,976	5,997	2,475	341	1,145	81,630
1960-61 ..	29,778	22,094	9,391	9,376	5,973	2,487	403	1,273	80,775
1961-62 ..	26,411	18,969	9,140	9,136	6,082	2,397	394	1,515	74,044

(a) Includes flats for periods prior to 1961-62.

(c) *Material of Outer Walls, 1961-62.* The following table shows the number of new houses completed in each State and Territory during 1961-62, classified according to the material of their outer walls.

## NEW HOUSES COMPLETED: NUMBER, 1961-62

(INCLUDING OWNER-BUILT HOUSES)

Material of outer walls	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Brick, brick veneer, concrete and stone ..	6,968	11,404	1,427	8,209	4,486	910	129	1,457	34,990
Wood (weatherboard, etc.) ..	7,493	5,744	6,010	106	79	1,413	..	51	20,896
Fibro-cement ..	11,901	1,673	1,616	817	1,427	74	261	7	17,776
Other ..	49	148	87	4	90	..	4	..	382
Total ..	26,411	18,969	9,140	9,136	6,082	2,397	394	1,515	74,044

(d) *Material of Outer Walls, 1957-58 to 1961-62.* The following table shows the number of new houses completed in Australia, classified according to the material of their outer walls.

## NEW HOUSES(a) COMPLETED: NUMBER, AUSTRALIA

(INCLUDING OWNER-BUILT HOUSES)

Material of outer walls	1957-58	1958-59	1959-60	1960-61	1961-62
Brick, brick veneer, concrete and stone ..	25,876	29,443	33,003	35,786	34,990
Wood (weatherboard, etc.) ..	26,854	28,690	26,857	24,764	20,896
Fibro-cement ..	17,864	20,009	21,314	19,830	17,776
Other ..	585	655	456	395	382
<b>Total ..</b>	<b>71,179</b>	<b>78,797</b>	<b>81,630</b>	<b>80,775</b>	<b>74,044</b>

(a) Includes Northern Territory flats for periods prior to 1961-62.

(v) *Under Construction*, 1957-58 to 1961-62. The number of new houses under construction at the end of each year 1957-58 to 1961-62 in each State and Territory is shown in the following table.

## NEW HOUSES UNDER CONSTRUCTION: NUMBER

(INCLUDING OWNER-BUILT HOUSES)

At end of year—	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
1957-58 ..	17,546	18,429	3,154	5,199	3,951	1,949	199	974	51,401
1958-59 ..	16,082	16,543	2,948	5,181	3,347	1,935	177	894	47,107
1959-60 ..	14,611	15,587	2,906	5,114	3,296	1,817	262	1,174	44,767
1960-61 ..	12,487	12,010	2,713	5,006	3,016	1,578	274	1,078	38,162
1961-62 ..	11,434	11,580	2,739	4,599	3,250	1,656	303	1,153	36,714

(a) Includes flats for periods prior to 1961-62.

3. *New Flats*.—The figures in the foregoing tables, except those for the Northern Territory for periods prior to 1961-62, do not include particulars of new flats. It should be noted: (a) that the figures hereunder are additional to the numbers of houses shown in other tables, (b) that each flat is counted as a separate unit, and the numbers shown therefore relate to individual flats, (c) that new flats only are included, i.e., conversions of old buildings into flats are omitted, and (d) "home units" are included as flats.

A graph showing the number of new flats commenced, completed and under construction for the period 1949-50 to 1961-62 will be found on page 402.

(i) *Approved, Commenced, Completed and Under Construction*, 1961-62. The summary below shows the number of new flats approved, commenced, completed and under construction for the year 1961-62.

## NEW FLATS: NUMBER, 1961-62

(Individual living units)

Particulars	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Approved ..	5,747	3,291	820	560	592	117	67	28	11,222
Commenced ..	4,927	3,001	588	605	493	166	62	28	9,870
Completed ..	5,938	4,070	928	593	265	154	2	269	12,219
Under construction at end of year ..	3,838	2,242	411	331	379	106	64	23	7,394

(ii) *Approved, Government and Private, 1957-58 to 1961-62.* The following table shows the number of new flats approved in each State or Territory, according to government and private ownership.

### NEW FLATS APPROVED: NUMBER

(Individual living units)

Year	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
GOVERNMENT										
1957-58	..	182	341	..	96	140	18	(a)	84	861
1958-59	..	953	728	..	187	23	65	(a)	502	2,458
1959-60	..	600	452	111	252	..	40	(a)	107	1,562
1960-61	..	674	456	100	230	63	24	(a)	262	1,809
1961-62	..	1,329	844	27	81	..	..	24	28	2,333

### PRIVATE

1957-58	..	1,942	1,039	1,033	470	155	56	(a)	2	4,697
1958-59	..	3,274	1,237	1,658	476	176	154	(a)	..	6,975
1959-60	..	8,973	4,028	1,733	739	365	146	(a)	47	16,031
1960-61	..	7,773	4,700	1,454	526	370	128	(a)	..	14,951
1961-62	..	4,418	2,447	793	479	592	117	43	..	8,889

### TOTAL

1957-58	..	2,124	1,380	1,033	566	295	74	(a)	86	5,558
1958-59	..	4,227	1,965	1,658	663	199	219	(a)	502	9,433
1959-60	..	9,573	4,480	1,844	991	365	186	(a)	154	17,593
1960-61	..	8,447	5,156	1,554	756	433	152	(a)	262	16,760
1961-62	..	5,747	3,291	820	560	592	117	67	28	11,222

(a) Included with houses for periods prior to 1961-62.

(iii) *Commenced, 1957-58 to 1961-62.* The number of new flats commenced in each State or Territory is shown in the following table.

### NEW FLATS COMMENCED: NUMBER

(Individual living units)

Year	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
1957-58	..	1,668	1,283	295	499	234	85	(a)	16	4,080
1958-59	..	2,855	1,826	887	751	229	206	(a)	430	7,184
1959-60	..	5,744	3,521	1,319	816	316	184	(a)	154	12,054
1960-61	..	7,578	4,672	1,153	571	358	129	(a)	258	14,719
1961-62	..	4,927	3,001	588	605	493	166	62	28	9,870

(a) Included with houses for periods prior to 1961-62.



(iv) *Completed, 1957-58 to 1961-62.* The following table shows the number of new flats completed in each State and Territory according to government and private ownership.

### NEW FLATS COMPLETED: NUMBER

(Individual living units)

Year	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
GOVERNMENT									
1957-58	215	482	..	158	52	24	(a)	56	987
1958-59	313	372	..	248	103	25	(a)	354	1,415
1959-60	445	632	2	152	13	82	(a)	474	1,800
1960-61	375	608	14	297	39	52	(a)	139	1,524
1961-62	1,188	620	99	120	24	16	..	256	2,323

### PRIVATE

1957-58	1,116	622	331	214	119	17	(a)	..	2,419
1958-59	1,622	1,062	651	392	109	106	(a)	4	3,946
1959-60	3,425	1,430	920	451	250	115	(a)	..	6,591
1960-61	6,244	3,575	1,198	590	401	123	(a)	35	12,166
1961-62	4,750	3,450	829	473	241	138	2	13	9,896

### TOTAL

1957-58	1,331	1,104	331	372	171	41	(a)	56	3,406
1958-59	1,935	1,434	651	640	212	131	(a)	358	5,361
1959-60	3,870	2,062	922	603	263	197	(a)	474	8,391
1960-61	6,619	4,183	1,212	887	440	175	(a)	174	13,690
1961-62	5,938	4,070	928	593	265	154	2	269	12,219

(a) Included with houses for periods prior to 1961-62.

(v) *Under Construction, 1957-58 to 1961-62.* The number of new flats under construction at the end of each year 1957-58 to 1961-62 in each State and Territory is shown in the table below.

### NEW FLATS UNDER CONSTRUCTION: NUMBER

(Individual living units)

At end of year—	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1957-58	1,094	971	177	311	163	78	(a)	428	3,222
1958-59	2,021	1,363	413	422	180	153	(a)	500	5,052
1959-60	3,890	2,822	810	635	233	140	(a)	180	8,710
1960-61	4,849	3,311	751	319	151	94	(a)	264	9,739
1961-62	3,838	2,242	411	331	379	106	64	23	7,394

(a) Included with houses for periods prior to 1961-62.

4. *Value of New Buildings.*—(i) *Approved, Commenced, Completed and Under Construction, 1957-58 to 1961-62.* The following table summarizes the values of all new buildings approved, commenced, completed and under construction in each State and Territory. All values shown exclude the value of land and represent the estimated value of buildings on completion.

**NEW BUILDINGS: VALUE**  
(INCLUDING ESTIMATED VALUE OF OWNER-BUILT HOUSES)  
(£'000)

Year	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<b>APPROVED</b>									
1957-58 ..	129,261	121,250	47,289	37,624	24,906	12,668	2,265	8,485	383,748
1958-59 ..	147,871	135,143	47,216	41,068	25,760	12,984	2,565	12,643	425,250
1959-60 ..	192,802	160,644	55,112	46,734	31,766	18,700	3,641	13,031	522,430
1960-61 ..	185,016	147,692	64,294	60,709	32,957	14,284	2,878	15,912	523,742
1961-62 ..	185,848	139,311	56,188	49,760	36,411	17,932	3,729	18,684	507,863
<b>COMMENCED</b>									
1957-58 ..	137,189	122,133	37,128	35,659	24,790	12,733	2,259	8,588	380,479
1958-59 ..	161,731	131,607	42,829	42,738	26,717	14,409	2,237	10,104	432,372
1959-60 ..	202,250	153,604	50,560	49,468	31,716	18,243	2,778	15,292	523,911
1960-61 ..	213,737	155,376	57,820	57,923	33,282	14,140	4,434	15,307	552,019
1961-62 ..	209,598	152,093	52,917	51,746	36,762	17,693	3,982	19,035	543,826
<b>COMPLETED</b>									
1957-58 ..	169,240	131,756	38,043	38,047	27,262	12,840	2,110	5,841	425,139
1958-59 ..	159,841	137,437	45,000	44,394	30,262	13,450	2,588	10,999	443,971
1959-60 ..	177,745	148,162	50,205	47,640	30,120	15,803	2,561	14,909	487,145
1960-61 ..	209,186	163,152	59,304	53,866	36,025	17,014	3,118	13,155	554,820
1961-62 ..	208,043	148,175	55,054	52,315	34,036	16,727	3,503	15,758	533,611
<b>UNDER CONSTRUCTION AT END OF YEAR</b>									
1957-58 ..	113,548	122,750	30,968	35,337	24,312	11,946	1,745	14,589	355,195
1958-59 ..	119,473	120,179	29,709	34,104	21,285	13,053	1,721	13,929	353,453
1959-60 ..	146,819	127,773	30,620	36,822	23,331	15,591	1,998	15,502	398,456
1960-61 ..	157,932	122,187	29,961	41,727	20,922	12,964	3,410	18,080	407,183
1961-62 ..	167,408	128,296	28,448	41,508	24,503	13,888	3,928	21,825	429,804

(ii) *Completed.* (a) *Type of Building, 1961-62.* The following table shows the value of all new buildings completed in each State and Territory during 1961-62, according to the type of building.

**NEW BUILDINGS COMPLETED: VALUE, 1961-62**  
(INCLUDING ESTIMATED VALUE OF OWNER-BUILT HOUSES)  
(£'000)

Type of building	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<b>Houses—</b>									
Brick, brick veneer, concrete and stone ..	34,423	48,161	5,798	28,182	15,473	3,702	536	7,466	143,741
Wood (weatherboard, etc.) ..	24,426	18,014	19,280	303	362	4,048		215	66,648
Fibro-cement ..	30,547	4,579	3,969	2,185	3,820	109	1,230	27	46,466
Other ..	171	514	268	9	80		12		1,054
<b>Total, Houses</b>	<b>89,567</b>	<b>71,268</b>	<b>29,315</b>	<b>30,679</b>	<b>19,735</b>	<b>7,859</b>	<b>1,778</b>	<b>7,708</b>	<b>257,909</b>
<b>Flats ..</b>	<b>19,005</b>	<b>13,343</b>	<b>2,791</b>	<b>1,380</b>	<b>671</b>	<b>456</b>	<b>4</b>	<b>1,026</b>	<b>38,676</b>
<b>Total, Houses and Flats ..</b>	<b>108,572</b>	<b>84,611</b>	<b>32,106</b>	<b>32,059</b>	<b>20,406</b>	<b>8,315</b>	<b>1,782</b>	<b>8,734</b>	<b>296,585</b>
<b>Hotels, hostels, etc. ..</b>	<b>7,869</b>	<b>2,447</b>	<b>1,735</b>	<b>795</b>	<b>602</b>	<b>706</b>	<b>293</b>	<b>617</b>	<b>15,064</b>
<b>Shops ..</b>	<b>13,973</b>	<b>4,302</b>	<b>1,775</b>	<b>1,397</b>	<b>925</b>	<b>1,139</b>	<b>77</b>	<b>82</b>	<b>23,670</b>
<b>Factories ..</b>	<b>23,651</b>	<b>18,047</b>	<b>2,203</b>	<b>2,648</b>	<b>1,519</b>	<b>2,251</b>	<b>561</b>	<b>154</b>	<b>51,034</b>
<b>Business premises—</b>									
Office ..	12,825	6,554	4,447	2,049	1,451	1,040	207	2,484	31,057
Other ..	8,781	5,435	3,246	1,515	1,584	522	193	329	21,605
<b>Educational ..</b>	<b>13,731</b>	<b>12,577</b>	<b>3,276</b>	<b>5,548</b>	<b>3,007</b>	<b>1,440</b>	<b>28</b>	<b>1,736</b>	<b>41,343</b>
<b>Religious ..</b>	<b>3,061</b>	<b>2,030</b>	<b>777</b>	<b>573</b>	<b>356</b>	<b>209</b>		<b>254</b>	<b>7,260</b>
<b>Health ..</b>	<b>3,973</b>	<b>6,154</b>	<b>1,414</b>	<b>3,067</b>	<b>2,346</b>	<b>410</b>	<b>74</b>	<b>265</b>	<b>17,703</b>
<b>Entertainment and recreation ..</b>	<b>6,903</b>	<b>2,198</b>	<b>777</b>	<b>717</b>	<b>633</b>	<b>244</b>	<b>24</b>	<b>126</b>	<b>11,622</b>
<b>Miscellaneous ..</b>	<b>4,704</b>	<b>3,820</b>	<b>3,298</b>	<b>1,947</b>	<b>1,207</b>	<b>451</b>	<b>264</b>	<b>977</b>	<b>16,668</b>
<b>Total, Other Buildings</b>	<b>99,471</b>	<b>63,564</b>	<b>22,948</b>	<b>20,256</b>	<b>13,630</b>	<b>8,412</b>	<b>1,721</b>	<b>7,024</b>	<b>237,026</b>
<b>Total, New Buildings</b>	<b>208,043</b>	<b>148,175</b>	<b>55,054</b>	<b>52,315</b>	<b>34,036</b>	<b>16,727</b>	<b>3,503</b>	<b>15,758</b>	<b>533,611</b>

(b) *Type of Building, 1957-58 to 1961-62.* The following table shows the value of all new buildings completed in Australia.

**NEW BUILDINGS COMPLETED: VALUE**  
(INCLUDING ESTIMATED VALUE OF OWNER-BUILT HOUSES)  
(£'000)

Type of building	1957-58	1958-59	1959-60	1960-61	1961-62
<b>Houses—</b>					
Brick, brick veneer, concrete and stone ..	98,131	113,187	127,580	143,756	143,741
Wood (weatherboard, etc.) ..	79,631	85,306	80,851	77,771	66,648
Fibro-cement ..	43,836	49,088	52,694	50,624	46,466
Other ..	1,662	1,947	1,430	1,243	1,054
<b>Total, Houses ..</b>	<b>223,260</b>	<b>249,528</b>	<b>262,555</b>	<b>273,394</b>	<b>257,909</b>
<b>Flats (a) ..</b>	<b>8,238</b>	<b>14,146</b>	<b>22,930</b>	<b>40,322</b>	<b>38,676</b>
<b>Total, Houses and Flats ..</b>	<b>231,498</b>	<b>263,674</b>	<b>285,485</b>	<b>313,716</b>	<b>296,585</b>
<b>Hotels, hostels, etc. ..</b>	<b>6,768</b>	<b>7,204</b>	<b>8,525</b>	<b>14,580</b>	<b>15,064</b>
<b>Shops ..</b>	<b>13,588</b>	<b>15,825</b>	<b>16,326</b>	<b>23,145</b>	<b>23,670</b>
<b>Factories ..</b>	<b>59,883</b>	<b>40,637</b>	<b>49,476</b>	<b>64,788</b>	<b>51,034</b>
<b>Business premises—</b>					
Office ..	33,678	25,450	24,767	32,344	31,057
Other ..	17,302	20,458	28,126	23,453	21,605
Educational ..	19,630	25,569	32,227	35,318	41,343
Religious ..	4,825	5,994	6,458	7,159	7,260
Health ..	19,889	18,841	11,216	14,072	17,703
Entertainment and recreation ..	8,815	8,975	8,622	9,749	11,622
Miscellaneous ..	9,263	11,344	15,917	16,496	16,668
<b>Total, Other Buildings ..</b>	<b>193,641</b>	<b>180,297</b>	<b>201,660</b>	<b>241,104</b>	<b>237,026</b>
<b>Total, New Buildings ..</b>	<b>425,139</b>	<b>443,971</b>	<b>487,145</b>	<b>554,820</b>	<b>533,611</b>

(a) Prior to 1961-62, the value of Northern Territory flats was included with houses.

(c) *Type of Building, Private and Government Ownership, 1959-60 to 1961-62.* The following table shows the value of all new building completed in Australia, classified by government and private ownership.

**NEW BUILDINGS COMPLETED: VALUE BY OWNERSHIP**  
(INCLUDING ESTIMATED VALUE OF OWNER-BUILT HOUSES)  
(£'000)

Type of building	Government			Private		
	1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
<b>Houses—</b>						
Brick, brick veneer, concrete and stone ..	18,497	19,518	20,720	109,083	124,238	123,021
Wood (weatherboard, etc.) ..	4,635	6,210	7,329	76,216	71,561	59,319
Fibro-cement ..	11,355	9,931	12,421	41,339	40,693	34,045
Other ..	133	106	75	1,297	1,137	979
<b>Total, Houses ..</b>	<b>34,620</b>	<b>35,765</b>	<b>40,545</b>	<b>227,935</b>	<b>237,629</b>	<b>217,364</b>
<b>Flats (a) ..</b>	<b>4,814</b>	<b>4,333</b>	<b>7,096</b>	<b>18,116</b>	<b>35,989</b>	<b>31,580</b>
<b>Total, Houses and Flats ..</b>	<b>39,434</b>	<b>40,098</b>	<b>47,641</b>	<b>246,051</b>	<b>273,618</b>	<b>248,944</b>
<b>Hotels, hostels, etc. ..</b>	<b>119</b>	<b>488</b>	<b>404</b>	<b>8,406</b>	<b>14,092</b>	<b>14,660</b>
<b>Shops ..</b>	<b>395</b>	<b>431</b>	<b>1,016</b>	<b>15,931</b>	<b>22,714</b>	<b>22,654</b>
<b>Factories ..</b>	<b>4,911</b>	<b>10,725</b>	<b>6,703</b>	<b>44,565</b>	<b>54,063</b>	<b>44,331</b>
<b>Business premises—</b>						
Office ..	9,013	9,912	11,075	15,754	22,432	19,982
Other ..	4,776	5,376	7,864	23,350	18,077	13,741
Educational ..	26,516	29,110	33,622	5,711	6,208	7,721
Religious ..	..	..	..	6,458	7,159	7,260
Health ..	9,495	11,084	14,462	1,721	2,988	3,241
Entertainment and recreation ..	1,354	1,536	2,215	7,268	8,213	9,407
Miscellaneous ..	10,650	10,981	10,339	5,267	5,515	6,329
<b>Total, Other Buildings ..</b>	<b>67,229</b>	<b>79,643</b>	<b>87,700</b>	<b>134,431</b>	<b>161,461</b>	<b>149,326</b>
<b>Total, New Buildings ..</b>	<b>106,663</b>	<b>119,741</b>	<b>135,341</b>	<b>380,482</b>	<b>435,079</b>	<b>398,270</b>

(a) Prior to 1961-62, the value of Northern Territory flats was included with houses.

5. *Value of Building Approved.*—The following table shows the values of approvals for houses and flats, other new buildings, and alterations and additions in Australia for the years 1957–58 to 1961–62. Additions of £5,000 and over are included with new buildings in all states except New South Wales, where they are included in alterations and additions.

**BUILDING APPROVED: VALUE, AUSTRALIA**  
(£'000)

Particulars	1957–58	1958–59	1959–60	1960–61	1961–62
Houses and flats .. .. .	249,347	267,548	319,341	300,393	279,292
Other new buildings .. .. .	134,401	157,702	203,089	223,349	228,571
<i>Total, New Buildings</i> .. .. .	<i>383,748</i>	<i>425,250</i>	<i>522,430</i>	<i>523,742</i>	<i>507,863</i>
Alterations and additions .. .. .	61,961	70,516	81,284	78,400	78,105
<i>Total, Building</i> .. .. .	<i>445,709</i>	<i>495,766</i>	<i>603,714</i>	<i>602,142</i>	<i>585,968</i>
Government .. .. .	95,632	103,929	115,800	133,863	140,743
Private .. .. .	350,077	391,837	487,914	468,279	445,225

6. *Persons Working on Jobs Carried out by Builders of New Buildings.*—(i) *At 29th June, 1962.* The following table shows the number of contractors, sub-contractors and wage earners working on jobs carried out by builders of new buildings at 29th June, 1962. It also shows the numbers of these persons classified according to their main building occupations and the type of building on which they were working.

**PERSONS WORKING ON JOBS CARRIED OUT BY BUILDERS OF NEW BUILDINGS, 29th JUNE, 1962**

(INCLUDING CONTRACTOR AND SUB-CONTRACTOR PRINCIPALS ACTUALLY WORKING ON JOBS BUT EXCLUDING PERSONS WORKING ON OWNER-BUILT HOUSES)

Particulars	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Contractors .. .. .	2,798	2,882	2,049	633	558	540	71	181	9,712
Sub-contractors .. .. .	6,432	5,886	2,264	2,411	1,674	560	136	596	19,959
Wage earners .. .. .	31,445	25,395	15,094	9,302	7,885	4,302	460	3,155	97,038
<i>Total</i> .. .. .	<i>40,675</i>	<i>34,163</i>	<i>19,407</i>	<i>12,346</i>	<i>10,117</i>	<i>5,402</i>	<i>667</i>	<i>3,932</i>	<i>126,709</i>
Carpenters .. .. .	14,804	12,708	8,749	3,330	3,127	2,430	203	1,152	46,503
Bricklayers .. .. .	3,921	3,733	1,199	2,076	1,292	366	81	436	13,104
Painters .. .. .	3,283	3,381	1,719	1,064	943	442	64	378	11,274
Electricians .. .. .	2,158	1,715	939	626	619	311	61	216	6,645
Plumbers .. .. .	3,463	3,028	1,490	1,085	885	311	74	302	10,638
Builders' labourers .. .. .	6,672	4,195	3,066	1,891	1,582	960	123	751	19,240
Other .. .. .	6,374	5,403	2,245	2,274	1,669	582	61	697	19,305
<i>Total</i> .. .. .	<i>40,675</i>	<i>34,163</i>	<i>19,407</i>	<i>12,346</i>	<i>10,117</i>	<i>5,402</i>	<i>667</i>	<i>3,932</i>	<i>126,709</i>
New houses and flats .. .. .	16,274	16,315	7,097	6,674	4,848	2,077	348	1,474	55,107
Repairs and maintenance .. .. .	2,560	1,334	1,431	285	1,153	430	..	273	7,466
Other building work(a) .. .. .	21,841	16,514	10,879	5,387	4,116	2,895	319	2,185	64,136
<i>Total</i> .. .. .	<i>40,675</i>	<i>34,163</i>	<i>19,407</i>	<i>12,346</i>	<i>10,117</i>	<i>5,402</i>	<i>667</i>	<i>3,932</i>	<i>126,709</i>

(a) Includes persons working on alterations and additions carried out by builders of new buildings.

(ii) *Summary, 1958 to 1962.* The number of persons in each State and Territory working on jobs carried out by builders of new buildings is shown in the following table.

### PERSONS WORKING ON JOBS CARRIED OUT BY BUILDERS OF NEW BUILDINGS

(INCLUDING CONTRACTOR AND SUB-CONTRACTOR PRINCIPALS ACTUALLY WORKING ON JOBS BUT EXCLUDING PERSONS WORKING ON OWNER-BUILT HOUSES)

At 30th June—	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1958 .. ..	32,673	31,634	17,886	10,687	8,924	4,460	370	2,982	109,616
1959 .. ..	36,281	32,626	20,691	12,636	9,092	5,310	401	2,900	119,937
1960 .. ..	41,102	37,533	22,199	13,306	9,195	5,432	405	3,456	132,628
1961 .. ..	39,981	32,195	18,192	12,416	8,456	4,793	608	2,973	119,614
1962(a) ..	40,675	34,163	19,407	12,346	10,117	5,402	667	3,932	126,709

(a) At 29th June.

## § 3. Government Activities in the Housing Field

1. *Housing Agreements between Commonwealth and State Governments.*—Under the Commonwealth-State Housing Agreements the Commonwealth Government makes substantial loans to the States for the provision of housing.

(i) *The 1945 Agreement.* In November, 1945, the Commonwealth Government entered into an Agreement with the Governments of the States whereby the Commonwealth Government would provide finance for, and the State Governments would undertake the building of, housing projects. Tasmania withdrew from the Agreement in August, 1950, and South Australia did not begin to operate under it until July, 1953.

Between 1945–46 and 1955–56 under this Agreement the Commonwealth Government advanced £88,849,000 to New South Wales; £85,781,000 to Victoria; £24,344,000 to Queensland; £11,700,000 to South Australia; £27,050,000 to Western Australia; and £2,835,000 to Tasmania. When Tasmania withdrew from the Agreement, it repaid all advances made to it.

For information on the conditions of sale, etc., under the 1945 Agreement, *see* Year Book No. 48, page 367. In 1961, the 1945 Agreement was amended to allow sales of dwellings on terms decided by the States. But tenants eligible under the *War Service Homes Act* are entitled to purchase dwellings built under the 1945 Agreement on the terms provided in the *War Service Homes Act*.

(ii) *The 1956 Agreement.* In 1956, the Commonwealth and the States entered into a new agreement, under which added emphasis was placed on the construction of homes for private ownership. The Commonwealth Government provided finance to the States over a period of five years ending 30th June, 1961, for the erection of housing projects. For the first two years of the agreement, 20 per cent. of the money allocated to each State (and 30 per cent. for the next three years) was advanced to building societies and other approved institutions for lending to private house builders. The remaining allocation to each State was used by the States for the erection of houses for either rental or sale. The States determined the type of houses to be erected, their location and the selection of tenants, and also fixed the terms of selling.

The Commonwealth was entitled to specify that a portion of the moneys be set aside for the erection of houses for serving members of the defence forces nominated by the Commonwealth. The Commonwealth provided supplementary advances to the States equal to the amounts set aside by them for this purpose.

For other features of the 1956 Commonwealth and State Housing Agreement, *see* Year Book No. 48, page 368.

(iii) *The 1961 Agreement.* Following the termination of the 1956 Agreement on 30th June, 1961, a new agreement running for a further period of five years was entered into by the Commonwealth and the State Governments. This Agreement continues with some amendments the terms and conditions of the 1956 Agreement, but the Commonwealth and/or a State may agree to contribute funds in excess of the previous statutory maximum of 5 per cent. of a State's allocation, for the erection of dwellings for servicemen.

Under the 1961 Agreement, each advance of money, together with interest thereon, is to be repaid in equal instalments over a period of 53 years from the date each advance is made. The rate of interest chargeable on advances is the long-term bond rate at the time the advance was made less one per cent. per annum. The interest rates under the Agreement have been: from 1st July, 1961, to 6th February, 1962,  $4\frac{1}{2}$  per cent. per annum; and since 7th February, 1962, 4 per cent. per annum.

(iv) *Operations in 1961-62.* The following tables shows operations under the various Housing Agreements during 1961-62.

## COMMONWEALTH AND STATE HOUSING AGREEMENTS, 1961-62

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
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## ADVANCES TO STATES (£'000)

Advances to States(a) 1956 and 1961 Agreements .. ..	17,633	14,001	4,397	9,063	3,721	2,928	51,743
State Housing Programme (70 per cent. maximum) ..	11,902	9,469	2,940	4,350	2,594	2,050	33,305
Home Builder's Account (30 per cent. minimum)—							
Advances .. ..	5,101	4,058	1,260	4,686	1,112	878	17,095
Amount drawn by institutions ..	5,740	5,050	1,400	4,173	1,187	863	18,413
Service Housing Funds allocated by(b)—							
Commonwealth .. ..	630	474	197	27	15	..	1,343
States .. ..	595	474	172	27	15	..	1,283

## NUMBER OF DWELLINGS

State Housing Programme—							
Commenced .. ..	3,947	2,689	1,009	1,427	1,150	562	10,784
Completed .. ..	3,905	2,203	1,105	1,814	812	492	10,331
Under construction at 30th June, 1962 .. ..	2,095	1,040	439	1,289	584	201	5,648
Home Builder's Account—							
Purchased—New .. ..	551	497	224	538	61	42	1,913
Other .. ..	38	..	..	..	..	2	40
New construction—							
Approved .. ..	1,758	2,076	293	1,221	397	285	6,030
Commenced .. ..	1,398	1,835	272	763	367	242	4,877
Completed .. ..	1,288	1,672	266	717	338	170	4,451
Service Housing—							
Agreed programme .. ..	372	206	107	18	10	..	713
Completed .. ..	381	197	47	32	31	..	688
Sold under—							
1945 Agreement .. ..	344	660	87	5	55	(c)	1,151
1956 and 1961 Agreements ..	1,959	1,465	704	28	500	354	5,010

(a) Includes supplementary advances for Service Housing. (b) 50 per cent. by Commonwealth and 50 per cent. by State. (c) Tasmania did not operate under the 1945 Agreement after August, 1950.

(v) *Advances, 1945-46 to 1961-62.* Advances made by the Commonwealth Government to the States, under the Agreements, in each year since 1945-46, are shown in the following table.

**COMMONWEALTH AND STATE HOUSING AGREEMENTS: ADVANCES  
TO STATES(a)  
(£'000)**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.(b)	Total
1945-46 .. ..	2,525	3,100	425	..	460	285	6,795
1946-47 .. ..	5,530	4,000	750	..	735	..	11,015
1947-48 .. ..	5,345	5,000	800	..	1,260	900	13,305
1948-49 .. ..	6,295	5,200	900	..	1,647	450	14,492
1949-50 .. ..	6,600	6,300	1,250	..	1,965	1,100	17,215
1950-51 .. ..	7,890	8,600	2,700	..	2,350	100	21,640
1951-52 .. ..	8,514	10,061	4,489	..	3,483	..	26,547
1952-53 .. ..	12,100	11,270	3,730	..	2,900	..	30,000
1953-54 .. ..	12,450	12,000	4,500	4,500	3,750	..	37,200
1954-55 .. ..	10,800	9,450	1,800	3,600	3,500	..	29,150
1955-56 .. ..	10,800	10,800	3,000	3,600	5,000	..	33,200
1956-57 .. ..	11,232	10,400	2,860	3,711	3,111	2,025	33,339
1957-58 .. ..	11,440	10,400	3,286	4,160	3,015	2,034	34,335
1958-59 .. ..	12,420	10,660	3,426	5,175	3,103	2,220	37,004
1959-60 .. ..	12,782	10,660	3,602	5,092	3,049	1,957	37,142
1960-61 .. ..	13,455	10,660	3,208	5,829	3,056	2,002	38,210
1961-62 .. ..	17,633	14,001	4,397	9,063	3,721	2,928	51,743
<b>Total .. ..</b>	<b>167,811</b>	<b>152,562</b>	<b>45,123</b>	<b>44,730</b>	<b>46,105</b>	<b>16,001</b>	<b>472,332</b>

(a) Includes supplementary advances (Service Housing) under the 1956 and 1961 Agreements.  
(b) Tasmania withdrew from the 1945 Agreement in August, 1950, and repaid all advances made to it.

(vi) *Dwellings Provided, 1945-46 to 1961-62.* The following table shows the number of dwellings provided under the Agreements, in each year since their inception.

**COMMONWEALTH AND STATE HOUSING AGREEMENTS: NUMBER OF  
DWELLINGS(a) PROVIDED**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.(b)	Total
Up to 30th June, 1946(c)	1,589	1,787	224	..	293	154	4,047
1946-47 .. ..	2,200	1,491	472	..	509	208	4,880
1947-48 .. ..	2,582	2,179	459	..	846	218	6,284
1948-49 .. ..	3,440	2,357	546	..	1,016	184	7,543
1949-50 .. ..	3,076	2,454	649	..	952	284	7,415
1950-51 .. ..	3,273	2,699	567	..	1,261	82	7,882
1951-52 .. ..	3,708	2,970	1,102	..	1,022	..	8,802
1952-53 .. ..	4,280	3,238	1,642	..	1,104	..	10,264
1953-54 .. ..	5,109	3,590	1,656	1,006	1,501	..	12,862
1954-55 .. ..	4,932	3,960	1,382	2,013	2,031	..	14,318
1955-56 .. ..	3,529	4,200	797	1,885	1,539	..	11,950
1956-57 .. ..	3,602	3,038	1,369	1,997	958	525	11,489
1957-58 .. ..	4,494	3,369	1,113	1,959	1,472	566	12,973
1958-59 .. ..	4,440	3,673	1,461	2,023	1,225	594	13,416
1959-60 .. ..	4,736	3,924	1,221	2,318	1,009	688	13,896
1960-61 .. ..	4,309	3,447	1,293	2,457	1,056	666	13,228
1961-62 .. ..	6,163	4,569	1,642	3,101	1,242	706	17,423
<b>Total .. ..</b>	<b>65,462</b>	<b>52,945</b>	<b>17,595</b>	<b>18,759</b>	<b>19,036</b>	<b>4,875</b>	<b>178,672</b>

(a) Includes flats.  
all advances made to it.  
1945-46.

(b) Tasmania withdrew from the 1945 Agreement in August, 1950, and repaid  
(c) The 1945 Agreement applied also to some dwellings erected before

(vii) *Houses Sold, 1948-49 to 1961-62.* The table below shows the number of houses sold under the Commonwealth and State Housing Agreements in each year since 1948-49.

**COMMONWEALTH AND STATE HOUSING AGREEMENTS: NUMBER OF HOUSES SOLD**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
1948-49 .. ..	15	..	13	..	..	..	28
1949-50 .. ..	98	6	12	..	115	..	231
1950-51 .. ..	122	39	94	..	508	..	763
1951-52 .. ..	338	26	86	..	480	..	930
1952-53 .. ..	528	13	13	..	309	..	863
1953-54 .. ..	403	6	16	1	94	..	520
1954-55 .. ..	165	..	26	7	96	..	294
1955-56 .. ..	733	1,289	121	275	177	..	2,595
1956-57 .. ..	3,197	1,732	466	231	294	207	6,127
1957-58 .. ..	3,679	1,336	672	259	737	398	7,081
1958-59 .. ..	2,507	2,506	720	252	222	247	6,454
1959-60 .. ..	2,701	2,672	614	140	324	311	6,762
1960-61 .. ..	2,004	2,704	663	88	572	329	6,360
1961-62 .. ..	2,303	2,125	791	33	555	354	6,161
<b>Total .. ..</b>	<b>18,793</b>	<b>14,454</b>	<b>4,307</b>	<b>1,286</b>	<b>4,483</b>	<b>1,846</b>	<b>45,169</b>

2. *War Service Homes.*—The provision of War Service Homes is a function of the War Service Homes Division of the Department of National Development, and the administration of the *War Service Homes Act* is under the control of the Director of War Service Homes.

The *War Service Homes Act* 1918-1962 is a measure for the provision of homes for Australian ex-servicemen who served during the 1914-1918 War or the 1939-1945 War and to persons with service in Korea or Malaya. Provision is made also for assistance to the female dependants of Australian ex-servicemen and other classes of eligible persons as defined in the Act. Assistance may be granted to an eligible person and the wife or husband of that person as joint tenants, but the War Service Homes Division does not provide homes for occupation purely on a tenancy basis.

(i) *Operations, 1961-62.* The following table gives details of the operations of the War Service Homes Division in the year 1961-62 and also since the inception of the Scheme on 6th March, 1919. The figures shown include operations in the Territories of Papua, New Guinea and Norfolk Island.

**WAR SERVICE HOMES DIVISION: OPERATIONS, AUSTRALIA, 1961-62, AND TO 30TH JUNE, 1962**

Particulars		1961-62			From inception to 30th June, 1962		
		Eligibility established from service in—		Total	Eligibility established from service in—		Total
		1914-18 War	1939-45 War, Korea or Malaya		1914-18 War	1939-45 War, Korea or Malaya	
Applications received	No.	1,083	15,842	16,925	113,791	330,824	444,615
Applications approved	"	740	12,150	12,890	54,862	184,733	239,595
Homes purchased	"	466	7,242	7,708	17,812	87,775	105,587
Homes built, or assistance given to build them	No.	148	2,424	2,572	23,812	60,460	84,272
Mortgages discharged	"	105	2,032	2,137	3,933	22,860	26,793
Total homes provided	"	719	11,698	12,417	45,557	171,095	216,652
Transfers or resales	"	69	671	740	9,148	10,211	19,359
Total capital expenditure	£'000	n.a.	n.a.	35,025	n.a.	n.a.	435,133
Total receipts	.. ..	n.a.	n.a.	21,503	n.a.	n.a.	201,419



(ii) *Operations, 1952-53 to 1961-62.* The table below gives details of certain activities of the War Service Homes Division each year from 1952-53 to 1961-62 and covers eligibility established from service in the 1914-18 War, 1939-45 War, Korea and Malaya.

### WAR SERVICE HOMES DIVISION: ANNUAL OPERATIONS, AUSTRALIA

Year	Number of—					Total capital expenditure	Total receipts
	Applications received	Homes provided					
		Homes purchased (a)	Homes built (b)	Mortgages discharged	Total		
						£'000	£'000
1952-53 .. ..	24,906	5,704	5,848	870	12,422	27,976	7,263
1953-54 .. ..	24,951	5,380	6,290	729	12,399	26,874	9,400
1954-55 .. ..	28,931	5,662	5,628	1,498	12,788	30,086	10,779
1955-56 .. ..	20,968	4,802	5,777	1,224	11,803	30,067	11,961
1956-57 .. ..	20,553	5,813	4,187	1,227	11,227	30,171	12,690
1957-58 .. ..	22,081	6,150	5,524	1,584	13,258	35,182	14,652
1958-59 .. ..	21,935	6,660	5,254	1,497	13,411	35,159	16,769
1959-60 .. ..	20,661	8,437	3,169	1,411	13,017	35,068	19,836
1960-61 .. ..	15,888	8,005	2,791	2,211	13,007	35,042	21,014
1961-62 .. ..	16,925	7,708	2,572	2,137	12,417	35,025	21,503

(a) Homes purchased with the assistance of War Service Homes Division.

(b) Or assistance given to build a home.

(iii) *Homes Provided, 1952-53 to 1961-62.* The following table gives details of the number of homes provided by the War Service Homes Division in each State and Territory of Australia and the Territories of Papua, New Guinea and Norfolk Island each year from 1952-53 to 1961-62.

### WAR SERVICE HOMES DIVISION: NUMBER OF HOMES PROVIDED

Year	N.S.W. (a)	Vic.	Qld (b)	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1952-53 ..	2,676	3,563	2,394	1,732	1,734	288	1	34	12,422
1953-54 ..	3,301	3,857	2,113	1,146	1,582	345	5	50	12,399
1954-55 ..	4,256	4,007	1,648	885	1,561	332	10	89	12,788
1955-56 ..	4,652	3,347	1,099	797	1,522	294	8	84	11,803
1956-57 ..	4,316	3,666	883	859	1,157	259	2	85	11,227
1957-58 ..	5,236	4,132	855	1,079	1,588	297	3	68	13,258
1958-59 ..	6,176	3,939	994	889	1,002	349	8	54	13,411
1959-60 ..	5,698	3,908	1,112	853	1,096	277	7	66	13,017
1960-61 ..	6,101	3,308	1,145	876	1,288	233	9	47	13,007
1961-62 ..	4,871	3,534	1,525	912	1,243	239	6	87	12,417

(a) Includes Norfolk Island.

(b) Includes Territories of Papua and New Guinea.

In addition to the homes provided under the *War Service Homes Act* and shown in the table above, 2,004 homes which had been provided originally under the Housing Agreements with the States have been taken over in accordance with those Agreements, 83 being taken over during 1961-62.

**3. State Housing Authorities.**—The following paragraphs describe briefly the organizations of the various State Housing Authorities and their activities in the fields of home construction and provision of homes on a rental basis (*see* § 4 for their financial advances to persons wishing to purchase or build a home). For summarized figures of total government construction of houses and flats, *see* pages 419 and 422.

(i) *New South Wales—The Housing Commission of New South Wales.* (a) *General.* The Housing Commission of New South Wales was constituted in 1942, with a full-time salaried chairman and four other members remunerated by fees. The principal function of the Commission is the provision of low-cost housing for rental or sale to persons in the lower or moderate income groups. The Commission is also empowered to make surveys of housing conditions, recommend local government building ordinances, provide assistance to private home builders, and undertake the manufacture, purchase, and supply of building materials.

Most of the permanent dwellings provided by the Commission have been erected under the Commonwealth-State Housing Agreements. In 1961, 3,658 houses and flats valued at £8,575,000 were completed by or for the Housing Commission, mostly erected by private builders on contract to the Commission.

(b) *Capital, Income and Expenditure.* Advances from the Commonwealth have provided most of the Housing Commission's capital funds. Of the £139,978,000 total capital funds available to the Commission from its inception to 30th June, 1962, £131,877,000 (or 94.2 per cent.) came from Commonwealth advances, £2,464,000 (1.8 per cent.) from Consolidated Revenue, £4,652,000 (3.3 per cent.) from General Loans Account and £985,000 (0.7 per cent.) from other State funds.

During the year 1961-62, the Housing Commission's income and expenditure (other than capital transactions) was—total income, £9,462,627 (consisting of rent £6,574,521, interest £1,996,880, other £891,226); and total expenditure, £8,382,826.

(c) *Rental Housing (other than Housing Agreements).* Upon request by other State Departments, the Housing Commission will erect houses for employees of those Departments, e.g., Education, Agriculture, Water Conservation, etc. These Departments provide the necessary land and funds needed to finance the erection of the houses. Rentals charged are fixed by the Departments in accordance with the salaries of the officers occupying the houses. The number of rental houses erected (other than under the Housing Agreements) is 925.

Specially designed units are erected by the Housing Commission to provide dwellings for elderly persons at rentals within their means. The rents of these units are £1 per week for elderly single persons and £1 10s. per week for elderly couples. Four hundred and twenty-seven of these units have been completed.

(d) *Sales Schemes.* During 1953-54, the Housing Commission began the erection of 100 houses for sale. Under this scheme, the Commission acted as the construction authority, while administrative arrangements were carried out by the Rural Bank. Houses were sold on the basis of 10 per cent. deposit with repayment of the balance over a maximum period of 40 years.

Applicants who have established eligibility for Housing Commission accommodation may now apply to have a standard type dwelling erected on their own block of land. Under this scheme, 207 dwellings have been completed.

(ii) *Victoria—Housing Commission, Victoria.* (a) *General.* A preliminary investigation into housing conditions in Victoria was begun in July, 1936, when a board for the purpose was appointed by the Government. As a result of their report, the *Housing Act* 1937 was passed by Parliament which provided for the appointment of a Housing Commission of four members to be the central housing authority of the State. The Housing Commission of Victoria was appointed on 1st March, 1938.

The objects of the Commission as now laid down are the improvement of existing housing conditions; the provision of suitable rental housing for persons displaced from slum reclamation areas or living under unsatisfactory conditions, and for other eligible persons; the sale of houses to eligible persons and making of advances to such persons to enable them to own their homes; the development of land for housing and related purposes; and the responsibility of maintaining housing standards. Until the 1945 Commonwealth-State Housing Agreement was entered into, with its retrospective application to all estates or projects completed after 3rd December, 1943, the construction of dwellings by the Commission was financed by loan funds provided by the State and by three specific debenture issues raised by the Commission. Since the signing of the 1945 Commonwealth-State Housing Agreement, the construction of dwellings has been financed by the Commonwealth Government.

(b) *Dwellings Provided.* At 30th June, 1962, the Housing Commission had completed 1,328 dwelling units under the State Housing Scheme, and 45,642 dwelling units under Commonwealth-State Agreements. An additional 1,187 units were either under construction or let to contract at this date.

(c) *Dwellings for Elderly Persons.* Specially designed dwelling units are erected by the Commission to provide dwellings for elderly persons at rentals within their means. To 30th June, 1962, 1,696 of these units had been completed.

(d) *Housing of Aborigines.* Under the *Aborigines Act* 1958, as amended by the *Aborigines (Housing) Act* 1959, the Housing Commission of Victoria is empowered to erect houses for the Aborigines Welfare Board for occupation as dwellings by aborigines. To 30th June, 1962, 13 of these units had been completed.

(e) *Rental Housing (other than Housing Agreements).* State Government Authorities, such as the Public Works Department, State Electricity Commission, Victorian Railways, State Rivers and Water Supply Commission, etc., provide from time to time the necessary land and finance for the erection of dwellings for employees of those departments. Rentals charged are fixed by the Government Authorities in accordance with the salaries of officers occupying the dwellings.

(f) *Rural Housing.* Prior to the end of the Second World War, the Commonwealth Government and various State Governments made arrangements for the settlement of discharged soldiers on the land as part of a general scheme of rehabilitation of ex-members of the Services. In 1945, the Victorian Government completed an Agreement with the Commonwealth Government, and legislation was passed constituting the Soldier Settlement Commission. The Commission is charged with the responsibility of developing a holding to a stage where it can be brought into production within a reasonable time. This provides for, amongst other things, the erection of farm residences. At 30th June, 1962, a total of 2,894 farm residences had been erected.

(iii) *Queensland—The Queensland Housing Commission.* (a) *General.* The Queensland Housing Commission was established in 1945 to assist in meeting the existing housing shortage. It took over the operations of the State Advances Corporation which was established in 1916 to make advances to home builders under the *State Advances Act* (State housing in Queensland originally began in 1910 under the Workers' Dwelling Board). In addition, the Commission was empowered to build houses itself, either for sale or for letting.

(b) *House Units Completed.* During 1961–62, the Commission completed 2,006 house units, bringing the total completions under all schemes since the revival of housing construction in 1944–45 to 26,126. Of this number, 15,047 houses, or 57.6 per cent., were for home ownership, and 11,079, or 42.4 per cent., were for rental.

(c) *Finance.* The Housing Commission finances its operations through two Treasury Trust Funds—the Queensland Housing Commission Fund and the Commonwealth-State Housing Fund. In addition, a Home Builders' Deposit Trust Fund is available to assist eligible persons to accumulate money to acquire land and erect a Commission dwelling

thereon, or to purchase a dwelling under contract of sale conditions. Total disbursements by the Commission for the year 1961-62 amounted to £10,929,291, representing £4,296,149 from the Queensland Housing Commission Fund and £6,633,142 from the Commonwealth-State Housing Fund, while the Home Builders' Deposit Fund had a balance of £4,718 at 30th June, 1962.

(d) *Rental Schemes.* In the field of rental housing, the Commission administers and acts as the constructing authority for the Commonwealth-State Housing Agreements of 1945, 1956, and 1961. These agreements have made possible large-scale home building programmes during the post-war years, the houses so built being mainly for rental, although they may be subsequently sold.

Until 28th March, 1961, when the *Workers' Homes Acts*, 1919-1957, were repealed, the Commission administered the *Workers' Homes* scheme, which was described in the Commonwealth Year Book No. 48, 1962, p. 371.

(e) *Sales Schemes.* Operating under the provisions of the *State Housing Acts*, 1945 to 1961, the Commission, through its scheme of *Workers' Dwellings*, makes advances for the construction of dwellings to eligible persons who own a suitable building site. To be eligible to participate in any of its home-ownership schemes a person must not own, nor must his wife or her husband own, a house in Queensland or elsewhere. The number of workers' dwellings completed during 1961-62 amounted to 682, making a total of 27,986 completions since the inception of the scheme. The Commission also has power to make advances, secured by mortgage, to firms for housing of employees.

Home ownership is further assisted through the Commission's powers to sell houses under contract of sale conditions. It may sell houses already erected to eligible applicants, or it will erect a dwelling to the intending purchaser's own design, on Commission land, for subsequent sale to him. Tenants of rental houses may also purchase, under contract of sale conditions, the houses they are occupying. Contract of sale agreements were made to purchase 883 of the Commission's houses during 1961-62.

The Commission is also authorized, under the *State Housing Acts Amendment Act*, 1961, to sell freehold land, or lease vacant Crown land which has been set apart for the purposes of the *State Housing Acts*, to an eligible person for the erection of a dwelling, subject to the condition that within 18 months from the date of contract he will execute a building agreement for the erection of a dwelling thereon for his occupation.

(iv) *South Australia—The South Australian Housing Trust.* (a) *General.* The South Australian Housing Trust was constituted in 1937 under the *South Australian Housing Trust Act*, 1936-37, for the purpose of providing comfortable homes for workers in regular employment on the lower ranges of income and for tenants in serious financial straits. The Housing Trust builds houses for both rental and sale and, in addition, administers an emergency dwelling scheme for the South Australian Government. From July, 1946 to 30th June, 1962, 44,059 houses were erected by the Trust in both city and country areas.

(b) *Rental Houses.* In 1958, the State Government made available funds for the purpose of providing houses in the country towns for people who cannot afford to pay an economic rent, and to 30th June, 1962, 177 houses had been built.

Upon request by State Government Departments, the Trust will erect houses for purchase by those Departments for the accommodation of their employees. During the financial year 1961-62, 72 houses were built for Education, Police, Highways, and Woods and Forests Departments, etc. Rents for the houses are determined by the Public Service Board. Rents charged for other accommodation are generally based on the overall cost of construction, and vary not only according to the size of the dwelling but also according to date of erection. As at 1st November, 1962, the rents of 5-roomed houses (i.e., 3 bedrooms) ranged from £2 2s. a week for houses of an older type to £3 12s. 6d. a week for houses then being completed. Factors taken into consideration when allotting rental houses include date of application, housing need and suitability of tenant. Persons with high incomes are asked to consider purchasing their own homes. Two- and three-storey groups of flats with weekly rentals ranging from £3 7s. 6d. to £6 10s. per flat have been built in the Metropolitan Area and at Elizabeth. By December, 1962, 953 of these flats had been completed in the Metropolitan Area and 220 at Elizabeth.

(c) *Sales Scheme.* Houses built under this scheme, which was inaugurated in 1946, are of solid or timber-frame construction. More than 20,200 have been completed in both metropolitan and country areas since the scheme began. The Trust may receive cash payment for the house and land. More usually, the purchaser pays a deposit (which varies according to the type of house and locality—at present £200 for a timber-frame house and £400 for a 5-roomed brick house—and the purchaser's ability to pay) and raises the balance by way of mortgage. In 1956, the Trust began the erection of houses, which may be of solid or timber-frame construction or a mixture of both, for individuals on their own land. Houses are built by contract under the Trust's supervision. Prices for building and supervision of the standard houses covered by the scheme in late 1962 ranged from £3,350 for a 2-bedroom brick house to £5,500 for a 6-roomed house. During 1962–63, the Trust commenced construction of Rental-Purchase houses. The aim of this scheme is to provide less expensive houses for the lower-middle income wage earner, and it is expected that such houses will, as far as possible, replace the demand for the double-unit type rental houses.

(d) *Rural Housing.* In order to assist primary producers, the Trust will erect houses on the applicant's own land for his own use or that of his employees, either using local materials or transporting prefabricated houses to the site. At the 30th June, 1962, prices for houses erected on level sites within 100 miles of Adelaide ranged from £2,300 for a 2-bedroom minimum type timber house to £3,000 for a 3-bedroom asbestos cement sheeted timber house.

(v) *Western Australia—State Housing Commission of Western Australia.* (a) *General.* The State Housing Commission was established in January, 1947, under the *State Housing Act* of 1946 to replace the Workers' Homes Board which had been created in 1912 to "erect and dispose of workers' dwellings and to make advances to people of limited means to provide homes for themselves". The *State Housing Act* 1946–1961 has as its objects "the improvement of existing housing conditions" and "the provision of adequate and suitable housing accommodation for persons of limited means and certain other persons not adequately housed". The legislation is comprehensive in scope, providing for the erection of homes for workers, the making of advances to workers for the purchase of homes, the erection of homes for letting on a weekly rental basis, the acquisition and development of land, the clearing of slums, the erection of hostels and the planning of community facilities. The Commission, consisting of seven members, builds houses for letting or sale and lends money for home building. The houses are built by private contract on land provided by the applicant or the Commission. Government housing is primarily the responsibility of the Commission, whose functions, in addition to its operations under the *State Housing Act*, include the administration in Western Australia of the Commonwealth and State Housing Agreements and the *War Service Homes Act*.

(b) *Operations.* The number of houses completed under the *State Housing Act* up to 30th June, 1962, was:—freehold—1,758; leasehold—3,083; assistance by second mortgage—831.

Various forms of assistance have been granted by the Commission to encourage home ownership, including schemes for arranging purchase by means of loans secured by mortgage, advances made under contract of sale, advances for securing homes under leasehold conditions, second mortgage loans and loans for the completion of partly built dwellings. Under the leasehold scheme a purchaser can convert, from perpetual Crown lease or a lease for a term of years, to freehold conditions upon having a 10 per cent. equity in the improvements and by agreeing to purchase the land at the valuation determined at the date of commencement of the lease.

The Commission also conducts certain other housing schemes and has completed, or is currently engaged in, other specific projects. Among the more important of these are the construction in the period 1951–52 to 1953–54 of 237 home units for evicted persons; the building of 653 homes at Kwinana-New Town between 1952–53 and 1955–56 in terms of the agreement contained in the *Oil Refinery Industry (Anglo-Iranian Oil Company Limited) Act*, 1952; the Government Employees' Housing Scheme, which commenced in 1958–59 and, up to 30th June, 1962, had provided 75 rental houses in country areas for certain government employees; the construction of 100 houses to be built under the provisions of the *Laporte Industrial Factory Agreement Act*, 1961; and the management, free of charge, of the McNess Housing Trust, a private endowment, the income from which, together with State Government allocations and Lotteries Commission donations, is used to provide homes for aged and infirm persons not able to acquire a home from their own resources. The Commission also undertakes the construction of houses for some other State Government Departments and semi-governmental authorities.

(vi) *Tasmania—The Housing Department.* (a) *General.* The Housing Department was established in July, 1953, as a separate identity, and is responsible for administering that portion of the *Homes Act* 1935 which relates to the acquisition and development of land for housing purposes and the erection of homes for rental and ultimate sale, the *Homes (Old Age Pensioners') Act* and the *Homes (Temporary Housing) Act*. Housing Department construction utilizes both day labour and private contractors to build houses on land developed by the Department. On-site construction is supported by the Department's factory which incorporates joinery works, timber mill, plumbing and electrical workshops, material stores, and garage. Most of the dwellings constructed by the Department are three-bedroom timber dwellings. Roofing is usually corrugated iron, but some coloured asbestos cement sheeting is used. Flats for elderly persons and multi-unit flats have also been constructed.

(b) *Construction of Dwellings.* During 1961–62, 492 dwellings were completed. Construction since 1944 is summarized in the following table.

Type of dwelling	One-bedroom	Two-bedroom	Three-bedroom	Total
Single unit—Timber .. .. .	..	510	5,734	6,244
Other material .. .. .	..	..	652	652
Elderly persons' flatettes .. .. .	28	108	..	136
Maisonettes .. .. .	..	12	10	22
Multi-unit flats .. .. .	125	157	14	296
<b>Total Dwelling Units .. .. .</b>	<b>153</b>	<b>787</b>	<b>6,410</b>	<b>7,350</b>

(c) *Dwellings for Rental.* Flats, maisonettes and elderly persons' homes are for rental only. It is the Department's policy to allot single-unit dwellings on a purchase contract basis except where the allottee would be unable to meet the full economic charges or where the dwelling would not be large enough for the allottee's future requirements. In the June quarter of 1962, rents of three-bedroom timber dwellings averaged £3 10s. per week, but on similar new dwellings allotted during 1961–62 rents averaged £5 3s. 6d. per week. Rental rebates are allowed in certain cases and the Department is reimbursed by the State Treasury. Rents of elderly persons' flatettes are graduated according to the incomes of occupiers. Under the current rental rebate formula, a married couple whose only income is the age pension pays £1 18s., while a single person solely dependent on the pension pays £1 per week.

(d) *Dwellings for Sale.* Allotments are made on a no deposit purchase contract basis with repayments over a 53-year term, but allottees are encouraged to pay a deposit if they are in a position to do so. Purchase contracts are sometimes surrendered to the Department. Net of surrenders, 4,415 purchase contracts had been entered into by June, 1962. The sale price, excluding land, of a new three-bedroom timber house in the Hobart metropolitan area was approximately £3,265 in the June quarter of 1962. Prices in the north and north-western areas were slightly lower.

The weekly instalments on a purchase contract are slightly less than the weekly rent of a similar dwelling, as the latter includes a charge for maintenance.

4. *Housing Schemes in Commonwealth Territories.*—(i) *Northern Territory.* In 1946, control of all government-owned residences in the Territory (excluding those belonging to the Defence Services, Commonwealth Railways or attached to post offices) was vested in the Administration. The Administration provides houses for rental to Commonwealth employees. In January, 1959, an Ordinance was passed to set up a Housing Commission to construct houses for letting at an economic rental to low income groups. To 25th February, 1963, 247 Housing Commission homes had been completed.

The Commission's 1961-62 building programme included a £20,000 project known as Tuckwell Court, consisting of 24 flats designed to accommodate aged pensioners in Darwin. These flats were occupied in December, 1962.

(ii) *Australian Capital Territory.* The Commonwealth Government provides houses and flats for rental to persons employed in the Australian Capital Territory. At 30th June, 1962, the Department of the Interior controlled 7,202 houses and 1,630 flats for rental purposes.

Government rental houses may be purchased by tenants. Up to 30th June, 1962, 2,407 houses had been sold to tenants.

(iii) *Papua and New Guinea.* In 1960, the Administration started a project for providing low-cost houses for rental to indigenes and mixed-bloods. To 30th June, 1962, 151 houses had been completed.

5. **Summary of Rental Activities of Government Authorities.**—(i) *Revenue from Rentals.* The following table shows the revenue from rentals for dwellings under control of Government Housing Authorities each year from 1958-59 to 1961-62.

**GOVERNMENT HOUSING AUTHORITIES: REVENUE FROM RENTALS**  
(£'000)

Year	N.S.W.	Vic.	Qld	S.A. (a)	W.A.	Tas.	N.T.	A.C.T.	Aust.
1958-59 ..	5,856	5,568	1,502	2,476	1,849	426	115	823	18,615
1959-60 ..	6,094	5,562	1,599	2,687	1,914	454	138	1,045	19,493
1960-61 ..	6,272	5,537	1,642	2,993	1,983	498	170	1,188	20,283
1961-62 ..	6,575	5,549	1,791	3,397	2,076	545	200	1,598	21,731

(a) Excludes rentals in respect of temporary and emergency dwellings.

(ii) *Number of Tenants Paying Rent.* The following table shows the number of tenants paying rent for dwellings under control of Government Housing Authorities at the end of each year from 1958-59 to 1961-62.

**GOVERNMENT HOUSING AUTHORITIES: NUMBER OF TENANTS  
PAYING RENT**

Year	N.S.W.	Vic.	Qld (a)	S.A. (b)	W.A.	Tas.	N.T.	A.C.T. (c)	Aust.
1958-59 ..	38,123	32,496	10,233	18,038	12,509	2,704	1,026	6,768	121,897
1959-60 ..	38,673	32,386	10,345	19,309	12,853	2,755	1,095	7,723	125,139
1960-61 ..	38,756	31,894	10,629	21,114	13,041	2,803	1,210	8,349	127,796
1961-62 ..	40,796	32,146	11,079	22,983	13,338	2,935	1,366	8,832	133,475

(a) Excludes tenanted temporary dwellings.  
At 30th June, 1962, these numbered 2,549.

(b) Excludes temporary and emergency dwellings.  
(c) Number of occupied dwellings at 30th June.

#### § 4. Advances to Home Purchasers

Many prospective home purchasers wish to borrow for the purpose of constructing or purchasing their own homes. Usually the loan is covered by way of mortgage of the home to be constructed or bought. Such loans are provided from a number of private sources and from agencies owned or guaranteed by the State or Commonwealth Governments. The information in this section concerns the direct loans made to home purchasers by the more important institutional lenders. Loans to institutions which in turn lend moneys to

home purchasers and loans to contract builders, etc., are excluded as far as possible. The loans may be for the construction of new dwellings, the purchase of existing dwellings, for additions, renovations, etc., as first or subsequent mortgages, overdrafts and so on.

While figures of all loans to home purchasers are not available, the institutions mentioned below account for a significant proportion of total loans. Details of the terms and conditions of lending are given, together with available information on the number and value of loans made.

**1. State Authorities and Agencies.**—(i) *New South Wales.* (a) *Housing Commission of New South Wales—Commission Financed Advances.* Under the *Housing Act, 1912–1955*, the Housing Commission is empowered to provide finance to persons to have houses erected on their own land, to purchase existing dwellings, or to effect improvements or repairs to houses. Regulations prescribing the present maximum amount that may be advanced and the limitation on income which may be received by an applicant for a loan have not been published, and at present no advances or sales are being made under this legislative provision.

(b) *Rural Bank of New South Wales—Sale of Homes Agency.* A Sale of Homes Agency was established in 1954 within the Rural Bank's Government Agency Department to arrange for the sale on terms of houses erected by the Housing Commission of New South Wales.

The Agency's operations began with the sale to selected purchasers of 100 houses made available by the Commission during 1954–55 and 1955–56. The sales were made on the basis of 10 per cent. deposit and repayment of the balance over a maximum period of 40 years, with interest at 4½ per cent. per annum. Total advances under that scheme amounted to £323,324; at 30th June, 1962, the advances outstanding amounted to £245,482 in respect of 92 houses.

Since 1956, the Sale of Homes Agency has acted as the agent of the Housing Commission in arranging the sale on terms of houses erected under the 1956 Commonwealth-State Housing Agreement. These houses are sold, in general at the Bank's valuation, to persons who have satisfied the Commission as to their housing needs and have registered as prospective purchasers. The terms of sale provide for a minimum deposit of £50 and repayment of the balance over a maximum period of 45 years, with interest at 5½ per cent. (4½ per cent. before May, 1961) per annum. The cash deposits and periodical instalments payable by purchasers are collected by the Agency as agent for the Commission. Particulars of the advances made by the Agency in connexion with the sale of houses erected under the 1956 Agreement are given in the following table.

**RURAL BANK OF NEW SOUTH WALES—SALE OF HOMES AGENCY: ADVANCES FOR HOMES SOLD UNDER THE 1956 COMMONWEALTH—STATE HOUSING AGREEMENT**

Year	Advances during year		Advances outstanding at end of year(a)	
	Number of houses	Amount	Number of houses	Amount
		£'000		£'000
1956–57 .. .. .	1,604	5,079	1,604	4,976
1957–58 .. .. .	3,012	9,983	4,612	14,715
1958–59 .. .. .	2,013	6,326	6,623	20,808
1959–60 .. .. .	2,227	7,200	8,831	27,692
1960–61 .. .. .	1,565	5,218	10,364	32,487
1961–62 .. .. .	1,826	6,537	12,129	38,508

(a) Comprises principal outstanding and loan charges due but not paid.

(c) *Rural Bank of New South Wales—Other Loans.* The Rural Bank of New South Wales provides assistance to individuals for the erection or purchase of homes, for the discharge of mortgages on homes and for other approved purposes associated with homes. Advances are based on the bank's official valuation of the dwelling. The rate of interest on long-term loans for housing purposes was increased from 5 per cent. to 5½ per cent. from 1st October, 1956, and to 5½ per cent. from 15th December, 1960.



The following table shows particulars of Rural Bank advances for homes during the last ten years.

### RURAL BANK OF NEW SOUTH WALES: ADVANCES FOR HOMES

Year	Advances during year(a)		Advances outstanding at end of year(b)	
	Number of dwellings	Amount	Number of dwellings	Amount
		£'000		£'000
1952-53 .. .. .	1,141	2,272	21,488	16,213
1953-54 .. .. .	1,375	2,135	20,045	15,749
1954-55 .. .. .	2,133	3,488	19,615	16,750
1955-56 .. .. .	1,399	2,757	18,778	17,419
1956-57 .. .. .	1,372	2,851	18,098	18,171
1957-58 .. .. .	1,576	3,490	17,644	19,595
1958-59 .. .. .	1,176	2,722	16,915	20,212
1959-60 .. .. .	1,610	4,026	16,611	21,967
1960-61 .. .. .	2,032	5,400	17,096	25,282
1961-62 .. .. .	1,668	5,658	17,357	28,211

(a) The number of advances during a year represents the number of dwellings in respect of which an advance was first made in the year, but the amount of advances includes subsequent advances made in respect of the dwellings. (b) The number of advances outstanding at the end of a year represents the number of dwellings on which a debt was still outstanding. The amounts shown comprise principal outstanding and loan charges due but not paid.

(ii) *Victoria. (a) Housing Commission, Victoria.* Very few houses were sold by the Commission until 1954. The amendments to the Commonwealth-State Housing Agreement in 1955-56 have had the effect of substantially increasing the number of houses sold. Whereas between 1949 and 1954 only about 100 houses were sold, a total of 14,308 houses were sold on terms to 30th June, 1962, the total value of terms sales exceeding £52 million.

Houses are sold on a minimum deposit of £100, with a maximum repayment term of 45 years, and interest at 4½ per cent.

An inducement to tenants of the Commission to purchase their homes was the introduction of a Death Benefit Scheme, to provide for the property under purchase to pass to the estate of the purchaser free of debt in the event of his death prior to completion of purchase. If application is made for admittance to the Death Benefit Scheme, the maximum period for repayment is reduced to 30 years, the rate of interest is fixed at 5½ per cent. and the contract must terminate before the purchaser's 70th birthday.

(b) *Home Finance Trust.* In 1956, a Home Finance Trust was established with the object of receiving money from institutions and others in order to make loans for the erection or purchase of houses. Applicants for loans must declare that they intend to use the houses as homes for themselves, their families and dependants. Except in special circumstances, no loan will be granted if the borrower or wife or husband of the borrower already owns a house in Victoria at the date of the proposed mortgage.

Loans granted are on the basis of a first mortgage over the house. Loans are not to exceed 95 per cent. of the value of the security (house and land) and are not made if the value of the security exceeds £5,000. The house must not have been erected more than two years before the date of the mortgage. Repayment of loans may be made over a maximum period of 30 years, with interest charges determined by the Trust. At 30th June, 1962, 2,223 loans totalling £6,168,848 had been made.

(See para. 3, Savings Banks, p. 442, for activities of the Crédit Foncier Department of the State Savings Bank of Victoria.)

(iii) *Queensland. (a) The Queensland Housing Commission.* The present maximum advance allowable under the Acts is £3,500 for a timber, brick veneer, brick, or concrete building. The rate of interest on advances is 5½ per cent. a year. Repayment may be made at the option of the borrower over either a 30-year or a 45-year period. A borrower

or purchaser who elects to repay over a 30-year period, who is under 40 years of age, and who has passed a prescribed medical examination, is entitled to free life insurance cover to an amount sufficient to liquidate his indebtedness to the Commission in the event of his death before his loan has been fully repaid, provided that the maximum benefit payable under such insurance cover does not exceed £2,250.

(b) *Workers' Dwellings.* From 4th October, 1962, the maximum advance under this scheme was increased to £3,500 for all types of workers' dwellings. Total advances made for dwellings since operations commenced in 1910 to 30th June, 1962, amounted to £25,423,624.

(iv) *South Australia.* (a) *The South Australian Housing Trust Sales Scheme.* A minimum deposit of £50 is proposed for houses under the Rental-Purchase scheme for a maximum loan of £3,750, repayable at a proposed interest rate of 4½ per cent. per annum over a period not exceeding 40 years.

Prospective purchasers of Housing Trust houses (other than Rental-Purchase houses) can arrange or have arrangements made for a first mortgage to be granted by a lending institution of their choice. In cases where the deposit and the first mortgage so raised are insufficient, the Trust may advance the balance of the house price by way of a second mortgage, the repayment term of which is a maximum of 30 years, interest being at the rate of 6 per cent. per annum.

During 1961-62, the Trust commenced 770 second mortgages valued at £404,000. At 30th June, 1962, second mortgages totalled 6,230 and the balance outstanding at that date was £3,342,000.

(b) *State Bank of South Australia.* The State Bank, together with the Housing Trust, is the principal agent of the State Government for the distribution through the Home Builders' Fund of moneys received under the Commonwealth-State Housing Agreement.

During 1961-62, the Bank opened 1,420 new accounts worth £3,923,014 in the Home Builders' Fund. The balance of loans outstanding at 30th June, 1962, in this Fund totalled £8,573,218.

A major proportion of loan moneys received by the State Government for housing is administered by the Bank under the *Advances for Homes Act*. Under this Act, 314 accounts, for a value of £1,010,448, were opened during 1961-62, leaving a balance outstanding at 30th June, 1962, of £15,634,606.

The present limit to housing loans under either of these schemes is £3,000, repayable over a period not exceeding 42 years at a rate of interest of 5½ to 6 per cent. per annum calculated on monthly balances. Persons who have received benefit under either of these schemes are ineligible for another mortgage.

(v) *Western Australia. State Housing Commission of Western Australia.* The maximum loan is £2,500 by way of mortgage and leasehold, and £2,750 plus land for contract of sale, under the *State Housing Act*. For houses built north of the 26th parallel the Minister can approve of an advance exceeding £2,750.

To proceed under the mortgage conditions, a deposit of not less than 10 per cent. is required, but under the contract of sale or leasehold provisions the minimum deposit is £100. The interest rate in both cases is 5½ per cent. per annum and the repayment period is 45 years. To obtain assistance, an applicant cannot have an income exceeding £1,228 a year, plus £25 for each dependent child under 16 years of age. This figure varies according to the movement of the basic wage. North of the 26th parallel, the Minister may allow a higher-income family to be assisted.

A second-mortgage scheme exists under the *State Housing Act* which provides that assistance be limited to those applicants who are building or purchasing new residential improvements, the cost of which does not exceed £3,300. By policy decision, the Commission limits the second mortgages to a maximum of £1,000.

(See para. 3, Savings Banks, p. 442, for activities of the Savings Bank Division of the Rural and Industries Bank of Western Australia.)

(vi) *Tasmania. (a) The Housing Department.* Amounts outstanding in respect of loans made by the Housing Department by way of purchase contracts were as follows for the years 1958–59 to 1961–62.

**TASMANIAN HOUSING DEPARTMENT: PURCHASE CONTRACTS**

Particulars	1958–59	1959–60	1960–61	1961–62
Number of loans outstanding .. ..	3,254	3,471	3,835	4,156
Amount outstanding .. .. £'000	8,901	10,112	11,317	12,601

The interest rate on contracts signed after February, 1962, was 4 per cent., immediately prior to which the rate was  $4\frac{1}{2}$  per cent. To be eligible for a house on purchase contract terms, an applicant must be married or about to be married, or have dependants for whom it is necessary to provide a home. Number of dependants, income and existing accommodation are considered in determining the priority of applicants.

(b) *Agricultural Bank of Tasmania.* The Agricultural Bank, as an approved institution under the Commonwealth-State Housing Agreement, receives part of those funds allocated for advances to home builders. Prior to the commencement of the agreement, the Bank borrowed from the State Loan Fund and from private institutions. To be eligible for a loan, an applicant must be married or about to be married and be over the age of 21, and when, as is usual, the advance is required to build a house, the applicant must own a block of land. The maximum amount of an advance to an applicant is £3,300 for brick or concrete block type houses in certain areas, or £3,000 for a timber dwelling, provided that the total advance does not exceed 90 per cent. of the Bank's valuation of land and dwelling. Advances to borrowers are repayable by equated instalments over 31 years. Advances made as from 1st February, 1962, were at an interest rate of  $5\frac{1}{2}$  per cent., immediately prior to which the rate was  $5\frac{3}{4}$  per cent. The following table shows details for recent years.

**TASMANIAN AGRICULTURAL BANK: ADVANCES FOR HOUSING(a)**

Particulars	1959–60	1960–61	1961–62
Advances approved—			
Number .. ..	100	115	239
Value .. .. £'000	310	362	730
Advances outstanding(b) .. .. £'000	3,957	4,195	4,512

(a) Excludes advances to Building Societies.

(b) At 30th June.

Since November, 1945, a total of 2,200 loans amounting to £5,871,606 have been approved, of which 2,032 have been for erection of dwellings and 168 for the purchase of existing homes.

2. *Commonwealth Authorities and Agencies.*—(i) *War Service Homes.* The maximum amount of loan or advance which may be granted under the *War Service Homes Act* is £3,500. The period of repayment may be up to 45 years. In the case of a widow or widowed mother of an Australian ex-serviceman, the period may be extended to a maximum of 50 years.

The following table gives details of advances by the War Service Homes Division in each State and Territory of Australia, and the Territories of Papua, New Guinea and Norfolk Island, for the years 1952–53 to 1961–62. (See tables on p. 430 for the number of homes provided.)

## WAR SERVICE HOMES DIVISION: ADVANCES FOR HOUSING

Period	N.S.W. (a)	Vic.	Q'land (b)	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
TOTAL CAPITAL ADVANCED DURING YFAR (£'000)									
1952-53 ..	6,121	7,868	5,108	3,956	4,145	704	6	68	27,976
1953-54 ..	7,508	8,146	4,063	2,505	3,784	734	11	123	26,874
1954-55 ..	10,367	9,197	3,569	2,091	3,819	783	22	238	30,086
1955-56 ..	11,815	8,859	2,708	2,125	3,572	753	15	220	30,067
1956-57 ..	11,298	9,680	2,321	2,396	3,545	684	6	241	30,171
1957-58 ..	14,013	11,090	2,298	2,898	3,891	801	16	175	35,182
1958-59 ..	15,513	10,874	2,715	2,425	2,584	890	15	143	35,159
1959-60 ..	14,957	10,977	2,987	2,342	2,888	728	18	171	35,068
1960-61 ..	16,165	9,020	3,211	2,396	3,490	612	22	126	35,042
1961-62 ..	13,157	10,263	4,461	2,658	3,500	700	16	270	35,025

## NUMBER OF SECURITIES IN FORCE

At end of June—									
1953 ..	15,268	23,965	13,634	11,251	8,073	1,928	9	184	74,312
1954 ..	18,010	26,704	14,881	11,542	9,218	2,069	19	233	82,676
1955 ..	21,868	29,618	16,103	11,860	10,453	2,317	27	326	92,572
1956 ..	25,455	31,408	16,747	11,968	11,108	2,476	31	395	99,588
1957 ..	29,312	34,461	17,332	12,527	12,634	2,703	30	457	109,456
1958 ..	34,081	37,446	17,835	13,119	13,442	2,932	32	512	119,399
1959 ..	38,512	40,181	18,369	13,522	14,090	3,116	34	548	128,372
1960 ..	43,029	42,913	18,876	13,897	14,856	3,259	41	603	137,474
1961 ..	47,713	45,275	19,572	14,371	15,886	3,364	49	640	146,870
1962 ..	51,445	47,827	20,712	14,947	16,806	3,538	53	710	156,038

## VALUE OF ADVANCES OUTSTANDING (£'000)

At end of June—									
1953 ..	16,696	33,893	18,673	14,870	10,393	2,016	(c)	(d)	96,541
1954 ..	23,835	40,950	22,514	17,063	13,646	2,355	(c)	(d)	120,363
1955 ..	32,813	48,349	25,437	18,509	16,989	3,661	(c)	(d)	145,758
1956 ..	44,708	55,277	27,482	20,143	20,902	4,259	(c)	(d)	172,771
1957 ..	55,870	63,416	28,885	21,912	23,503	4,810	(c)	(d)	198,396
1958 ..	68,169	72,692	30,206	24,179	27,292	5,391	(c)	(d)	227,929
1959 ..	83,019	81,239	31,943	25,824	29,504	6,130	(c)	(d)	257,659
1960 ..	96,293	89,380	33,692	27,234	31,643	6,623	(c)	(d)	284,865
1961 ..	109,575	95,312	35,719	28,753	34,367	7,018	(c)	(d)	310,744
1962 ..	119,851	102,645	39,073	30,510	36,997	7,447	(c)	(d)	336,523

(a) Includes Norfolk Island.

(b) Includes Territory of Papua and New Guinea.

(c) Included in South Australia.

(d) Included in New South Wales.

(ii) *Northern Territory. (a) Loans Scheme.* This Scheme, inaugurated in 1953, provides for loans for the erection of houses, the purchase or extension of existing houses or the discharge of mortgages on houses. The maximum loan available was increased from £2,000 to £2,750 in July, 1955, and to £3,500 in April, 1962.

Up to 30th June, 1962, 758 loans totalling £1,962,000 had been approved. These were for:—construction, 554; purchase, 157; discharge of mortgage, 47.

(b) *Sales Scheme.* The Administration is prepared to sell to its tenants for cash or on terms the houses they occupy. Minimum deposit is 5 per cent. of the first £2,000 and 10 per cent. of the balance, with repayments over a maximum of 45 years and interest of  $4\frac{1}{2}$  per cent. per annum.

(iii) *Australian Capital Territory.* Loans may be granted by the Commissioner for Housing to enable persons to purchase or build a new house in the Australian Capital Territory. Where the Commissioner's valuation does not exceed £2,000, the maximum loan may not exceed 95 per cent. of the valuation. If the Commissioner's valuation exceeds £2,000, the maximum loan is 95 per cent. of the first £2,000 and 90 per cent. of the balance (but in no case can the amount lent exceed £3,500). Repayment may be made over a maximum period of 45 years. The current rate of interest is  $5\frac{1}{4}$  per cent. per annum. From 1st July, 1950, to 30th June, 1962, 1,280 loans were granted.

Government rental houses may be purchased by tenants. The basis of the sale is a minimum deposit of 10 per cent. of the purchase price fixed by the Department of the Interior with no limit to the amount which may be held on mortgage from the Department. Repayment of the amount covered by mortgage may be made over a maximum period of 45 years. The interest rate is 4½ per cent. per annum. Up to 30th June, 1962, 2,407 houses had been sold to tenants.

(iv) *Papua and New Guinea.* The *Housing Loans Ordinance* 1953–1958 permits the advance of loans of up to £3,500 to any member of the community for the erection of a house or the purchase or extension of an existing house. The loans are limited to declared township areas and are repayable over a maximum period of 35 years. The effective rate of interest is 5½ per cent. per annum. Up to 30th June, 1962, 198 loans totalling £465,783 had been approved.

3. **Savings Banks.**—All savings banks lend funds for housing to both individuals and to building societies. Separate figures of loans to individuals are not available for all savings banks. The amounts outstanding on housing loans of all savings banks (including loans to building societies) were £277 million, £312 million and £346 million at the end of June, 1960, 1961 and 1962, respectively.

Some details in respect of three savings banks are shown below.

(i) *State Savings Bank of Victoria—Crédit Foncier Department.* The State Savings Bank of Victoria grants long term loans to depositors to enable them to build, purchase or improve homes and to purchase or improve farms. Most, but not all, of the loans are made by the Crédit Foncier Department of the Bank.

In order to encourage new building, home loans are granted only on houses up to one year old. The maximum proportion of the valuation to be granted as loan is 80 per cent. and the maximum loan is £3,500. Interest is 5½ per cent. and the term of the loan is 20½ years.

During 1961–62, the Crédit Foncier Department advanced £7,362,966 to 3,446 borrowers and at the end of that year £68,646,443 was owing by 38,526 borrowers.

(ii) *Savings Bank of South Australia.* The Bank grants mortgage loans for the building or purchase of houses for personal occupation. The maximum loan available is £3,000 for a new solid construction home and £2,250 for timber-framed houses and dwellings which have been previously occupied, or 95 per cent. of the Bank's valuation of the home if the mortgage is granted under the *Homes Act*, or 75 per cent. for other mortgages. The maximum loan period is 30 years at a rate of interest of 5½ per cent., subject to review after 10 years.

During 1961–62, the Bank advanced £5,124,535 on 1,899 loans for houses. At 30th June, 1962, there were 17,937 loans current with a balance outstanding of £31,530,000.

(iii) *The Rural and Industries Bank of Western Australia (Savings Bank Division).* The Rural and Industries Bank of Western Australia is authorized by the *Rural and Industries Bank Act* 1944–1958 to make loans from moneys in deposit with its Savings Bank Division to a person or body for the purchase or erection of a dwelling. It is the policy of the Bank to provide funds for housing primarily for occupancy by the borrower. There is no fixed limit on the amount of a loan, but loans in excess of £3,500 are rarely made. The average loan in the case of a brick or timber house is about £2,500. The rate of interest is 5½ per cent. per annum and the average repayment term about 22 years.

During the year ended 31st March, 1962, three separate "One Hundred Small Homes" plans were conducted by the Bank with State Government financial assistance. The scheme is designed to assist credit-worthy people with less deposit than is otherwise needed to secure a housing loan, and assistance has been limited to borrowers with income of £1,750 per annum or less. Under this scheme the Bank has granted 316 loans totalling £971,864, of which the State Government contributed £225,000. This contribution enabled individual advances to be made to a maximum of £3,500 on a minimum deposit of 10 per cent., the loan being repayable over a maximum period of 25 years at an interest rate of 5½ per cent. per annum.

4. **Trading Banks.**—Apart from loans by certain State banks as Government agencies (see State and Commonwealth Authorities and Agencies, paras. 1 and 2, pp. 437–42), advances for housing to individuals are also provided by the trading banks.

Amounts outstanding in respect of advances to individuals for housing purposes made by the major trading banks were £98 million, £85 million and £95 million at the end of June, 1960, 1961 and 1962, respectively.

5. **Life Insurance Companies.**—The life insurance companies are another source of funds for housing. Details of new loans made during 1962 (particulars for earlier years are not available) are given in the following table.

**LIFE INSURANCE COMPANIES: HOUSING LOANS PAID OVER DURING 1962**

State							Amount
							£'000
New South Wales .. .. .	..	..	..	..	..	..	23,394
Victoria .. .. .	..	..	..	..	..	..	12,167
Queensland(a) .. .. .	..	..	..	..	..	..	3,715
South Australia(b) .. .. .	..	..	..	..	..	..	3,882
Western Australia .. .. .	..	..	..	..	..	..	2,021
Tasmania .. .. .	..	..	..	..	..	..	1,429
Australian Capital Territory .. .. .	..	..	..	..	..	..	838
<b>Total .. .. .</b>	..	..	..	..	..	..	<b>47,446</b>

(a) Includes loans made in Papua and New Guinea.  
Territory.

(b) Includes loans made in Northern

Amounts outstanding at the end of June, 1960, 1961 and 1962, in respect of housing loans made by insurance companies were £134 million, £151 million and £153 million respectively.

6. **Registered Building Societies.**—Excluding the Victorian Co-operative Housing Societies there are some 1,700 registered building societies in Australia, of which about 100 are permanent societies and the remainder terminating societies. The permanent societies are in the main investment societies which make loans for housing purposes, usually on *crédit foncier* terms, and obtain their funds from share capital deposits and borrowings from banks and other lending institutions. The terminating societies are co-operative societies which make loans to members from funds obtained from lending institutions (usually government guaranteed), members' subscriptions, and, since 1956, from moneys provided under the Commonwealth-State Housing Agreements.

Details of new loans granted and loans outstanding for each of the years ended June, 1957 to 1961, are given in the following table.

**REGISTERED BUILDING SOCIETIES**

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
<b>LOANS GRANTED DURING YEAR (£'000)</b>							
1956-57 ..	16,668	2,582	2,287	590	1,414	942	24,483
1957-58 ..	17,985	3,611	2,736	721	1,890	1,024	27,967
1958-59 ..	21,038	3,884	3,320	932	2,234	1,146	32,554
1959-60 ..	20,560	4,689	4,889	1,157	2,710	1,357	35,362
1960-61 ..	23,702	4,637	5,418	1,212	2,863	1,310	39,142
<b>ADVANCES OUTSTANDING(a) AT END OF YEAR (£'000)</b>							
1956-57 ..	100,386	15,273	7,841	2,767	3,596	3,270	133,133
1957-58 ..	107,654	16,329	9,092	3,130	5,508	3,699	145,412
1958-59 ..	117,341	17,185	10,814	3,624	6,923	4,176	160,063
1959-60 ..	124,396	19,256	13,493	4,326	8,601	4,806	174,878
1960-61 ..	134,890	20,569	16,744	4,997	10,253	5,318	192,771

(a) Net of borrowing members' funds.

The Victorian Co-operative Housing Societies are identical in character with the terminating societies in other States, and in 1961, there were some 500 of these societies.

The table below shows details of outstanding loans at the end of, or during, the years ended 30th June, 1957 to 1961. The details given are on a gross basis, as details of borrowing members' funds are not available.

**VICTORIAN CO-OPERATIVE HOUSING SOCIETIES: ADVANCES  
OUTSTANDING(a)**

Year(b)									Amount
									£'000
1955-56	..	..	..	..	..	..	..	..	37,510
1956-57	..	..	..	..	..	..	..	..	43,558
1957-58	..	..	..	..	..	..	..	..	51,018
1958-59	..	..	..	..	..	..	..	..	57,274
1959-60	..	..	..	..	..	..	..	..	64,820

(a) Gross; borrowing members funds have not been deducted.  
year ended 30th June.

(b) At end of, or during,

7. **Other Lenders.**—Little information is available on advances made by other lenders such as superannuation and other trust funds, private finance and investment companies, etc. In South Australia, advances on first mortgage are granted by the Superannuation Fund under the *Advances for Homes Act* by which the State Government guarantees 15 to 25 per cent. of the value of the mortgage, thus raising the limit of the advance. Loans so made are limited to 95 per cent. of the Superannuation Board's valuation to a maximum of £3,000, and 85 per cent. of the Board's valuation to a maximum of £3,500. The rate of interest is 6 per cent. per annum, calculated on quarterly balances, reducing to 5½ per cent. when payments are made within a prescribed period of 21 days from the end of the quarter. The terms of the mortgage may run for 30 years on a stone or brick home or 20 years on a timber framed construction. Trustee mortgages may be granted as an alternative. A maximum of 70 per cent. of the Board's valuation may be granted for a trustee mortgage.

At 30th June, 1962, there were 4,723 Superannuation Fund loans current, the principal outstanding totalling £7,336,412. During 1961-62, advances made by the South Australian Superannuation Board were to a value of £1,048,714.

## CHAPTER XII

### LABOUR, WAGES AND PRICES

NOTE.—Reference is made in this chapter to retail, wholesale and export price indexes. For particulars of the Farm Production Price Index, see Chapter XXIX, Miscellaneous.

For further information on the subjects dealt with in this Chapter, see the *Labour Report*, issued by this Bureau. For current information, see the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the *Quarterly Summary of Australian Statistics*, also the mimeographed statements *Monthly Bulletin of Employment Statistics*, *Wage Rates and Earnings*, *Consumer Price Index*, *Wholesale Price (Basic Materials and Food-stuffs) Index*, and *Export Price Index*.

In addition, the following relevant special publications were issued in mimeographed form during 1962:—*Minimum Weekly Wage Rates, 1939 to 1959* (S.B. 123); *Minimum Weekly Wage Rates, January, 1960 to June, 1962* (S.B. 124); *Survey of Weekly Earnings—Australia, October, 1961* (S.B. 22); *Wage and Salary Earners in Employment, June, 1947 to June, 1960*.

### RETAIL PRICES AND PRICE INDEXES

#### § 1. General

Retail prices of food and groceries and average rentals of houses for years extending back to 1901 were collected by the Commonwealth Statistician, and in some cases have been recorded by Statisticians for earlier years.

Retail prices of a more extensive range of commodities (including clothing) and certain services in common demand have been ascertained at frequent and regular intervals since 1923 for each of the six State capital cities and for 27 of the more important towns of Australia. Comparable information is available for the month of November in each year from 1914 to 1922 for each of the six State capital cities. The list of items currently priced for index purposes is published in *Labour Report* No. 48, 1960.

Average retail prices of certain food and grocery items in current periods are published in the annual *Labour Report*.

An explanation of the nature and purposes of retail price indexes is given in the various editions of the annual *Labour Report*, together with further particulars of indexes then current. In § 2 below, previous retail price indexes for Australia are briefly outlined. The current retail price index, entitled the Consumer Price Index, was published for the first time in August, 1960. It was compiled retrospectively to 1948–49. A description of the Consumer Price Index is given in § 3 on pages 446–50.

#### § 2. Previous Retail Price Indexes

1. General.—Five series of retail price indexes had been compiled at various times for Australia by the Commonwealth Statistician prior to 1960. Each of these was continued until changed conditions required the compilation of indexes more directly relevant to current conditions. The respective indexes were as follows.

- (i) The “A” Series Index (covering food, groceries and house rents) was first compiled in 1912 with the year 1911 as base = 1,000. It was discontinued in June, 1938.
- (ii) The “B” Series Index (covering food, groceries and rent of 4 and 5 roomed houses) was first compiled in 1925 and continued until December Quarter, 1953. It was the food and rent constituent of the “C” Series Index and was designed to replace the “A” Series Index for general statistical purposes.



- (iii) *The "C" Series Index* (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking and some other miscellaneous items) was first compiled in 1921. It was last issued on its original basis for December quarter, 1960. For certain transitional purposes the "C" Series Index was issued for some quarters after that. This was calculated by varying the index numbers of December quarter, 1960, in ratio to movements shown by the Consumer Price Index.
- (iv) *The "D" Series Index*, derived by combining the "A" and "C" Series Indexes, was used by the Commonwealth Court of Conciliation and Arbitration from May, 1933, to May, 1934, and then discontinued.
- (v) *The Interim Index* (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking, certain services and some miscellaneous items) was first compiled in 1954 with the year 1952-53 as base year = 100. As its title indicated, it was constructed as a transitional index. Its compilation was discontinued following its replacement by the Consumer Price Index in June quarter, 1960.

2. *The "Court" Index*.—In 1937, the Commonwealth Court of Conciliation and Arbitration introduced a "Court" Index for the purpose of its system of making automatic quarterly adjustments to the basic wage within its jurisdiction. By decision of the Court, the "Court" Index ceased to be issued by the Industrial Registrar as at December Quarter, 1953. "Court" Index numbers were an arithmetical conversion of the "C" Series Index.

### § 3. Consumer Price Index

1. *General*.—This retail price index was first compiled in 1960, retrospectively to September quarter, 1948. A full description of the index is given in Labour Report No. 48, 1960.

2. *Origin*.—The list of component items and the weighting pattern of the "C" Series Retail Price Index, first adopted in 1921, were slightly revised by Conference of Statisticians in 1936, but otherwise continued almost unchanged until the index was discontinued in 1960. The reasons for this, and the circumstances which led to the present Consumer Price Index, appear from ensuing paragraphs.

From the outbreak of war in 1939 to late in 1948, periodic policy changes in regard to various war-time controls (including rationing) caused recurrent changes in consumption and in the pattern of expenditure. This rendered changes desirable but made it impracticable either to produce a new index, or to revise the old one, on any basis that would render the index more representative than it already was of the changing pattern of household expenditure in those years.

When commodity rationing had virtually ceased in the latter part of 1948, action was taken by the Statistician to collect price data of about 100 additional items and to gather information as to current consumption and expenditure patterns. This was done to facilitate review of the component items and weighting system of the "C" Series Retail Price Index, in the light of the new pattern of wage-earner expenditure and consumption that appeared to be emerging. But there supervened, in the next few years, conditions which caused wide price dispersion coupled with a very rapid rise in prices and a new sequence of changes in consumption and the pattern of wage-earner expenditure. Under these conditions, it was not possible to devise any new weighting pattern likely to be more continuously representative of current conditions than was the existing "C" Series Index on the 1936 revision.

A Conference of Statisticians considered the matter in June, 1953, and resolved (in part) as follows:—

- "(a) That, in view of the persistence of recurrent changes in the pattern of consumer expenditure in the post-war period, it is undesirable to make a general revision of the list of items and weighting system of the "C" Series Retail Price Index at present, unless industrial tribunals expressly desire some revision for special purposes.

- (b) That an Interim Retail Price Index be compiled with putative weights and components representative, as nearly as may be, of the post-war pattern of consumer usage and expenditure."

The "C" Series Index continued to be compiled on its pre-war basis without significant change in procedures. The Interim Retail Price Index was introduced in 1954 and continued until March quarter, 1960.

This Interim Index was a transitional index designed to measure retail price variations on the "C" Series model in terms of post-war consumption weights, as emerging in the early 1950's. It embraced a wider range of commodities and services than did the "C" Series Index, but it did not take into account successive major changes in the pattern of expenditure and modes of living that began to occur early in 1950 and through to 1960. These changes could not, in fact, be detected and measured promptly, and incorporated into an index, concurrently with their happening. Nor was it envisaged as desirable to adopt fundamentally new procedures in price index construction until it was fully evident that far-reaching procedural changes were necessary to meet the situation that had developed between about 1950 and 1960.

In this period, home owning largely replaced house renting, the use of the motor car greatly increased and partly replaced use of public transport, and various items of electrical household equipment and television came into widespread use. The impact of these and other changes in usage upon the pattern of household expenditure was heightened by disparate movements in prices. Together, they rendered nugatory the attempt to meet the situation by devising a single Interim Retail Price Index. As studies progressed and new data became available, it was clear that *no single list of items and no single set of fixed weights* would be adequately representative as a basis for measuring retail price changes at all times throughout the post-war period. In consequence, the situation was met by compiling the Consumer Price Index constructed as a chain of linked indexes with significant changes in composition and weighting effected at short intervals during the period 1950-1960.

3. Purpose, Scope and Composition.—(i) *General.* The Consumer Price Index is a quarterly measure of variations in retail prices for goods and services representing a high proportion of the expenditure of wage-earner households. The weighting pattern relates to estimated aggregates of wage-earner household expenditures and not to estimated expenditures of an "average" or individual household of specified size, type, or mode of living. In this way, it is possible to give appropriate representation to owner-occupied houses as well as rented houses and to include motor cars, television sets, and other major expenditures which relate to some households and not to others.

Consumer (retail) price indexes are sometimes loosely called "cost of living indexes" and are thought to measure changes in the "cost of living". Neither the Consumer Price Index, nor any other retail price index, measures changes in the cost of living that result directly from changes in the mode or level of living. Changes of that kind are matters for consideration apart from price indexes, but the change in prices of goods and services is a very important part of the change in the cost of living and this part is measured by consumer (retail) price indexes.

The Consumer Price Index covers a wide range of commodities and services arranged in the following groups:—

- Food;
- Clothing and Drapery;
- Housing;
- Household Supplies and Equipment;
- Miscellaneous.

These groups do not include every item of household spending. It is both impracticable and unnecessary for them to do so. Prices are collected regularly for specified quantities and qualities of a large and representative selection of commodities and services. Movements in the prices of these items, when combined in suitable proportions, provide a representative measure of price change as affecting a high proportion of the expenditure of wage-earner households.

(ii) *Composition and Weighting.* A comprehensive view of the present composition and weighting of the Consumer Price Index is given in the table below. The weights shown are those comprised in the index for the six State capital cities combined. Broadly, they are in proportion to estimated consumption in 1956-57 (see (iii) "*Basis of Weighting*" on p. 449), valued at the relevant prices of March quarter, 1960.

## CONSUMER PRICE INDEX

COMPOSITION AND WEIGHTING PATTERN AS AT MARCH QUARTER, 1960, FOR THE SIX STATE CAPITAL CITIES COMBINED

Group, section, etc.	Percentage weight	
	Section, etc.	Group
<i>Food—</i> .. .. .	..	32.1
Cereal products—Bread, flour, biscuits, rice, and breakfast foods .. .. .	4.1	..
Dairy produce—Milk, cheese, butter, and eggs .. .. .	7.5	..
Potatoes, onions, preserved fruit and vegetables—Potatoes and onions, canned and dried fruits, and canned vegetables .. .. .	1.9	..
Soft drink, ice cream and confectionery .. .. .	4.0	..
Other (except meat)—Sugar, jam, margarine, tea, coffee, baby foods, and sundry canned and other foods .. .. .	4.2	..
Meat—Butcher's (beef, mutton, lamb and pork) .. .. .	8.8	..
Processed (bacon, smallgoods and canned meat) .. .. .	1.6	..
<i>Clothing and drapery—</i> .. .. .	..	19.0
Men's clothing .. .. .	4.5	..
Women's clothing .. .. .	7.4	..
Boys' clothing .. .. .	0.6	..
Girls' clothing .. .. .	0.9	..
Piecegoods, etc.—Wool, cotton and rayon cloth, nursery squares and knitting wool .. .. .	1.1	..
Footwear—Men's, women's and children's .. .. .	3.4	..
Household drapery—Bedclothes, towels, tablecloth, etc. .. .. .	1.1	..
<i>Housing—</i> .. .. .	..	10.7
Rent—Privately owned houses .. .. .	2.0	..
Government-owned houses .. .. .	0.9	..
Home ownership—House price .. .. .	4.7	..
Rates .. .. .	2.1	..
Repairs and maintenance .. .. .	1.0	..
<i>Household supplies and equipment—</i> .. .. .	..	13.2
Fuel and light—Electricity .. .. .	1.9	..
Gas .. .. .	1.5	..
Other (firewood and kerosene) .. .. .	0.8	..
Household appliances—Refrigerator, washing machine, stoves, radio set, television set, vacuum cleaner, electric iron, etc. .. .. .	4.5	..
Other household articles—		
Floor coverings .. .. .	0.5	..
Kitchen and other utensils, gardening and small tools .. .. .	1.0	..
Household sundries (household soaps, etc.) .. .. .	1.1	..
Personal requisites (toilet soap, cosmetics, etc.) .. .. .	1.0	..
Proprietary medicines .. .. .	0.8	..
School requisites .. .. .	0.1	..
<i>Miscellaneous—</i> .. .. .	..	25.0
Transport—Fares—Train .. .. .	1.6	..
Tram and bus .. .. .	2.8	..
Private motoring—Car purchase .. .. .	3.0	..
Car operation .. .. .	3.9	..
Tobacco and cigarettes .. .. .	3.9	..
Beer .. .. .	4.1	..
Services—Hairdressing (haircuts, wave, etc.) .. .. .	0.9	..
Drycleaning .. .. .	0.5	..
Shoe repairs .. .. .	0.3	..
Postal and telephone services .. .. .	0.8	..
Other—Radio and television operation .. .. .	1.6	..
Cinema admission .. .. .	0.6	..
Newspapers .. .. .	1.0	..
<b>Total</b> .. .. .	<b>100.0</b>	<b>100.0</b>

4. *Structure.*—(i) *A Chain of Linked Indexes.*—Substantial changes occurred in consumer usage and patterns of expenditure following the 1939–45 War. In order to keep the weighting pattern representative of current expenditures, it became necessary to construct indexes with additional items and changes in the weighting pattern at intervals, rather than on the basis of a list of items and set of weights that remained unchanged throughout the whole period covered. Four new series for short periods (namely, from the September quarter of 1948 to the June quarter of 1952, from the June quarter of 1952 to the June quarter of 1956, from the June quarter of 1956 to the March quarter of 1960, and from the March quarter of 1960 onwards) were therefore constructed and linked to form a continuous retail price index series to be known as the Consumer Price Index. During each period between links, the items and weighting remained unchanged. At times of linking, the weighting pattern was altered and new items that had become significant in household expenditure were introduced.

Under this method, in effect, average percentage price movements are assessed on one pattern up to the time of the link and on another pattern thereafter. The process of linking ensures that the series reflects only price variations and not differences in cost of the old and new lists of items. The introduction of new items and weights by linking does not, of itself, raise or lower the level of the index.

(ii) *Comparison of the Four Linked Series.* The Consumer Price Index is a chain of “fixed weight aggregative” indexes, with significant changes in composition and weighting effected at June quarter, 1952, June quarter, 1956, and March quarter, 1960. The principal changes are:—

- (a) the introduction of private motoring (June quarter, 1952) and of television (March quarter, 1960);
- (b) altered proportions of houses under the various modes of occupancy (June quarters, 1952 and 1956); and
- (c) changes in weights of fuel and fares (June quarters, 1952 and 1956) and of private motoring (June quarter, 1956).

It is envisaged that future links will be made in the index when significant changes in the pattern of household expenditure render it necessary to do so.

(iii) *Basis of Weighting.* For most of the items included in the index, the weights used are based on the pattern of consumption of the years 1952–53 to 1956–57, which for these items is broadly representative of the whole period for which the index has been compiled. In some important fields, no single set of items and weights was adequately representative throughout the whole period. Weights relevant to short-term conditions in these fields were therefore used in each of the four linked series which constitute the Consumer Price Index. The principal fields affected are Fuel and Light, Transport, Household Appliances, and Housing.

The resultant sets of index weights are broadly typical of the patterns of consumption of:—

- 1948–49: for periods up to June quarter, 1952;
- 1952–53: for periods from June quarter, 1952 to June quarter, 1956;
- 1956–57: for periods from June quarter, 1956.

The weighting of the index from the beginning of the current linked series (i.e., March quarter, 1960) is representative of a 1956–57 pattern of consumption as adjusted to incorporate television in the index from March quarter, 1960.

The sets of weights used for the successive periods covered by the index have been derived from analyses of statistics of production and consumption, the general Censuses of 1947 and 1954, the Censuses of Retail Establishments of 1948–49, 1952–53 and 1956–57 and the continuing Survey of Retail Establishments, from information supplied by manufacturing, commercial, and other relevant sources, and from special surveys.

In the main, the weights for items are derived from estimates of average household consumption or expenditure for the community as a whole. The following are the principal exceptions.

- (a) The proportionate weighting of the various modes of occupancy of houses, and the weighting generally in the Housing Group, are as estimated for wage and salary earner households (in the individual cities).
- (b) The weights for private motoring, tobacco and cigarettes, beer and some services have been adapted to accord with notional estimates of expenditure by wage earner households.
- (c) Local weights for the individual cities are used for some items (e.g. housing, fuel, and fares).

Basic data for many of the item weights were obtained initially from particulars of quantities consumed. Refinements were made where necessary so that item weights would reflect the approximate relative importance of the items (sometimes including similar items not directly priced) in terms of expenditure. Group and section weights were checked as far as possible against independent estimates of expenditure. Nevertheless, the index is essentially a combination of selected items under various headings and not a dissection of total household expenditure into its component parts. Tables showing the index weighting are provided to assist prospective users in an understanding of the index. The weights are designed as suitable for measuring changes in retail prices within the definition of the index and do not purport to be valid estimates for any other purpose.

#### § 4. Tabular Statements of Retail Price Index Numbers

1. **Consumer Price Index.**—(i) *General.* The index has been compiled for each quarter from September quarter, 1948, and for each financial year from 1948–49. "All Groups" index numbers and "Group" index numbers for each of the five major groups are compiled and published regularly for the six State capital cities separately and combined. The reference base for each of these indexes is: year 1952–53 = 100.0. Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number.

Index numbers for each quarter are first issued in mimeographed statistical bulletins available from the Commonwealth Statistician about three weeks after the end of the quarter. These bulletins contain comment on the index and on price movements in that quarter. Tables showing index numbers for preceding quarters and years are presented.

(ii) *Consumer Price Index Numbers.* The following table shows Consumer Price Index Numbers (Total All Groups), for the six State capital cities separately and combined, for periods from the year 1948–49.

#### CONSUMER PRICE INDEX: ALL GROUPS INDEX NUMBERS

##### SIX CAPITAL CITIES, SEPARATELY AND COMBINED

(Base of each Index: Year 1952–53 = 100.0)

NOTE.—The separate city indexes measure price movements within each city individually. They do not compare price levels as between cities.

Period	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Six Capital Cities (weighted average)
<b>Year ended June—</b>							
1949 .. ..	60.5	61.0	62.1	61.6	60.6	60.7	60.9
1950 .. ..	65.6	66.2	67.1	66.2	66.2	64.7	66.0
1951 .. ..	74.5	74.6	75.1	74.7	74.4	73.3	74.6
1952 .. ..	91.9	91.0	91.8	91.4	90.4	90.4	91.4
1953 .. ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1954 .. ..	101.6	102.0	102.0	102.3	103.0	105.0	102.0
1955 .. ..	102.3	102.0	102.9	103.5	105.2	104.9	102.6
1956 .. ..	105.7	108.1	106.3	106.9	107.9	110.2	106.9
1957 .. ..	112.9	114.0	112.0	111.1	112.9	116.9	113.1
1958 .. ..	114.5	114.4	114.4	111.9	113.6	117.0	114.2
1959 .. ..	115.3	116.6	118.2	114.5	114.7	118.7	116.0
1960 .. ..	117.8	120.0	121.2	118.0	116.9	120.8	118.9
1961 .. ..	122.1	125.9	125.4	122.9	121.2	127.5	123.8
1962 .. ..	122.6	126.3	127.3	122.5	121.6	128.1	124.3
<b>Quarter—</b>							
1959—March ..	115.5	117.1	119.0	115.0	114.7	119.1	116.3
June .. ..	115.8	117.9	119.1	115.3	115.5	119.3	116.8
September ..	116.3	118.2	120.2	116.3	115.9	119.7	117.3
December ..	117.2	118.8	120.8	116.9	115.7	120.1	118.0
1960—March ..	118.2	119.8	121.6	118.3	117.1	120.8	119.0
June .. ..	119.6	123.0	122.3	120.6	119.0	122.6	121.1
September ..	120.8	124.9	123.6	121.5	119.8	125.8	122.5
December ..	121.6	125.5	125.1	122.4	120.8	127.1	123.3
1961—March ..	122.5	126.1	126.7	123.4	121.9	128.3	124.2
June .. ..	123.4	127.1	126.1	124.3	122.4	128.9	125.0
September ..	123.1	126.8	127.0	123.5	121.7	129.1	124.8
December ..	122.5	126.5	127.1	122.5	121.3	128.3	124.3
1962—March ..	122.4	125.9	127.7	122.1	121.5	127.5	124.1
June .. ..	122.3	125.9	127.3	121.9	121.8	127.5	124.0
September ..	122.7	126.2	127.5	121.9	122.1	127.6	124.3
December ..	123.2	126.2	127.6	121.9	121.7	128.2	124.4
1963—March ..	123.3	126.0	127.8	121.9	122.3	128.0	124.5

The following table shows Consumer Price Index Group Index Numbers, for the six State capital cities combined, for periods from the year 1948-49.

## CONSUMER PRICE INDEX: GROUP INDEX NUMBERS

## WEIGHTED AVERAGE OF SIX CAPITAL CITIES

(Base of each Index: Year 1952-53 = 100.0)

NOTE.—The group indexes measure price movements of each group individually, and compare the degree of price change in the different groups.

Period	Food	Clothing and Drapery	Housing	Household Supplies and Equipment	Miscel- laneous	All Groups
Year ended June—						
1949 .. ..	54.1	58.4	72.5	67.0	66.6	60.9
1950 .. ..	58.6	67.4	76.1	71.1	69.6	66.0
1951 .. ..	68.6	77.8	81.0	78.1	76.3	74.6
1952 .. ..	89.9	93.5	89.1	92.9	92.3	91.4
1953 .. ..	100.0	100.0	100.0	100.0	100.0	100.0
1954 .. ..	103.5	100.7	104.8	101.6	99.9	102.0
1955 .. ..	104.3	101.0	108.4	101.4	99.9	102.6
1956 .. ..	110.2	102.0	115.1	101.6	105.9	106.9
1957 .. ..	115.3	103.9	122.1	105.8	118.0	113.1
1958 .. ..	113.3	107.0	127.3	107.5	119.7	114.2
1959 .. ..	115.4	108.2	130.6	108.7	121.2	116.0
1960 .. ..	119.8	109.4	135.2	109.8	123.9	118.9
1961 .. ..	127.7	111.6	144.8	111.2	127.3	123.8
1962 .. ..	125.5	112.8	150.7	112.7	128.1	124.3
Quarter—						
1958—March ..	113.9	106.7	127.6	107.1	119.6	114.3
June .. ..	113.9	108.2	128.8	107.3	119.8	114.8
September ..	113.7	108.2	129.2	107.9	120.1	114.9
December ..	114.6	108.4	130.4	108.7	121.3	115.8
1959—March ..	116.3	108.1	130.9	108.9	121.5	116.3
June .. ..	117.1	107.9	131.9	109.1	121.9	116.8
September ..	117.9	108.3	132.5	109.4	122.3	117.3
December ..	118.4	109.2	133.9	109.6	123.0	118.0
1960—March ..	120.3	109.5	134.8	110.0	123.8	119.0
June .. ..	122.6	110.5	139.4	110.2	126.4	121.1
September ..	126.0	110.7	141.4	110.6	126.7	122.5
December ..	126.7	111.5	144.1	111.0	127.2	123.3
1961—March ..	128.6	111.7	145.7	111.3	127.5	124.2
June .. ..	129.4	112.4	148.0	111.9	127.7	125.0
September ..	128.1	112.4	148.5	112.6	127.9	124.8
December ..	125.3	112.9	150.5	112.7	128.3	124.3
1962—March ..	124.7	112.9	151.0	112.7	128.0	124.1
June .. ..	123.7	112.9	152.6	112.8	128.2	124.0
September ..	124.2	113.0	153.3	112.8	128.4	124.3
December ..	124.3	113.2	154.7	112.4	128.7	124.4
1963—March ..	124.1	113.2	155.3	112.1	129.0	124.5

The following table shows Consumer Price Index Group Index Numbers for each State capital city for recent years and quarters.

### CONSUMER PRICE INDEX: GROUP INDEX NUMBERS

(Base of each Index: Year 1952-53 = 100.0)

NOTE.—The index numbers hereunder are designed to measure movements in retail prices of specified groups of items for specified cities individually. They measure variations from time to time and not differences in price level as between cities nor comparative costs of groups of items.

City	Year ended June—						1962				1963
	1949	1953	1959	1960	1961	1962	Mar. Qtr	June Qtr	Sept. Qtr	Dec. Qtr	Mar. Qtr
FOOD GROUP											
Sydney ..	52.2	100.0	113.4	117.5	124.4	121.9	121.2	120.0	120.7	121.4	121.1
Melbourne ..	54.9	100.0	116.1	120.8	130.2	127.8	126.6	125.6	126.5	126.1	125.5
Brisbane ..	56.4	100.0	119.8	124.2	130.4	130.8	131.4	129.4	129.3	129.5	130.3
Adelaide ..	56.1	100.0	117.5	123.1	132.2	127.6	126.3	125.7	125.6	125.7	125.7
Perth ..	55.0	100.0	115.2	118.4	124.4	123.5	123.4	124.2	124.7	122.8	123.7
Hobart ..	56.0	100.0	116.8	118.5	132.1	129.0	127.2	126.5	126.6	128.0	127.2
Six Capitals(a) ..	54.1	100.0	115.4	119.8	127.7	125.5	124.7	123.7	124.2	124.3	124.1
CLOTHING AND DRAPERY GROUP											
Sydney ..	58.0	100.0	107.5	108.5	110.3	111.4	111.5	111.5	111.6	111.8	111.8
Melbourne ..	58.6	100.0	109.6	110.7	112.8	114.0	114.2	114.2	114.3	114.4	114.4
Brisbane ..	59.2	100.0	109.4	111.9	115.1	116.7	116.8	116.8	116.9	117.0	117.0
Adelaide ..	58.3	100.0	105.4	106.8	109.5	111.2	111.4	111.5	111.5	111.5	111.6
Perth ..	59.6	100.0	107.2	108.2	110.8	111.7	111.8	111.5	111.7	111.8	112.0
Hobart ..	58.0	100.0	109.8	110.7	112.4	114.0	114.2	114.2	114.4	114.4	114.4
Six Capitals(a) ..	58.4	100.0	108.2	109.4	111.6	112.8	112.9	112.9	113.0	113.2	113.2
HOUSING GROUP											
Sydney ..	74.2	100.0	130.2	133.8	140.7	147.5	147.6	150.2	151.1	152.8	153.8
Melbourne ..	76.0	100.0	129.4	135.8	151.2	157.5	158.1	159.2	159.5	160.8	161.3
Brisbane ..	67.1	100.0	128.4	132.6	137.6	140.5	140.3	141.9	143.2	144.1	144.2
Adelaide ..	68.7	100.0	137.1	140.0	148.7	153.5	154.2	153.9	154.3	154.7	154.7
Perth ..	62.7	100.0	130.3	133.5	141.7	146.4	147.1	147.8	148.8	150.9	151.2
Hobart ..	70.3	100.0	141.3	148.5	156.6	163.8	164.6	166.1	166.3	168.7	169.4
Six Capitals(a) ..	72.5	100.0	130.6	135.2	144.8	150.7	151.0	152.6	153.3	154.7	155.3
HOUSEHOLD SUPPLIES AND EQUIPMENT GROUP											
Sydney ..	67.0	100.0	109.1	109.6	111.5	113.2	113.1	113.3	113.3	112.6	112.4
Melbourne ..	66.1	100.0	109.2	110.9	112.5	114.1	114.2	114.4	114.2	114.1	113.8
Brisbane ..	68.6	100.0	109.0	110.6	111.3	113.0	113.2	113.0	113.1	112.8	112.5
Adelaide ..	69.5	100.0	105.0	106.0	106.1	106.7	106.5	106.7	106.8	106.0	105.9
Perth ..	66.5	100.0	105.9	107.1	107.3	107.3	107.1	107.2	107.2	106.9	106.9
Hobart ..	68.1	100.0	116.8	118.5	121.1	124.3	123.9	124.2	124.2	123.7	123.6
Six Capitals(a) ..	67.0	100.0	108.7	109.8	111.2	112.7	112.7	112.8	112.8	112.4	112.1
MISCELLANEOUS GROUP											
Sydney ..	67.7	100.0	121.9	124.0	127.1	127.9	128.0	128.0	128.4	129.1	129.8
Melbourne ..	64.4	100.0	122.2	125.5	129.2	129.3	129.0	129.5	129.5	129.5	129.6
Brisbane ..	69.2	100.0	123.6	125.6	129.5	133.3	134.3	134.3	134.3	134.4	134.3
Adelaide ..	67.2	100.0	114.6	118.8	121.4	121.9	121.5	121.6	121.5	121.5	121.6
Perth ..	67.7	100.0	118.7	120.9	125.2	125.3	124.9	124.9	124.8	124.9	126.0
Hobart ..	63.1	100.0	121.2	123.3	126.2	127.0	126.8	126.9	126.9	126.9	127.1
Six Capitals(a) ..	66.6	100.0	121.2	123.9	127.3	128.1	128.0	128.2	128.4	128.7	129.0

(a) Weighted average.

## § 5. Retail Price Index Numbers, 1901 to 1962

The index numbers shown below are presented as a continuous series, but they give only a broad indication of long-term trends in retail price levels. They are derived by linking a number of indexes that differ greatly in scope. The successive indexes used are: from 1901 to 1914, the "A" Series Retail Price Index; from 1914 to 1946-47, the "C" Series Retail Price Index; from 1946-47 to 1948-49, a composite of Consumer Price Index Housing Group (partly estimated) and "C" Series Index excluding Rent; from 1948-49 to 1962, the Consumer Price Index.

## RETAIL PRICE INDEX NUMBERS, 1901 TO 1962

## SIX STATE CAPITAL CITIES COMBINED

(Base: Year 1911 = 100)

Year	Index number	Year	Index number
1901	88	1932	138
1902	93	1933	133
1903	91	1934	136
1904	86	1935	138
1905	90	1936	141
1906	90	1937	145
1907	90	1938	149
1908	95	1939	153
1909	95	1940	159
1910	97	1941	167
1911	100	1942	181
1912	110	1943	188
1913	110	1944	187
1914(a)	114	1945	187
1915(a)	130	1946	190
1916(a)	132	1947	198
1917(a)	141	1948	218
1918(a)	150	1949	240
1919(a)	170	1950	262
1920(a)	193	1951	313
1921(a)	168	1952	367
1922(a)	162	1953	383
1923	166	1954	386
1924	164	1955	394
1925	165	1956	419
1926	168	1957	429
1927	166	1958	435
1928	167	1959	443
1929	171	1960	459
1930	162	1961	471
1931	145	1962	469

(a) November.

## § 6. International Comparisons

The following table shows index numbers of consumer (retail) prices for various countries. Except where otherwise noted, the year 1958 is taken as base (= 100). The index numbers show fluctuations in prices in each country, and do not measure relative price levels as between countries.



## INDEX NUMBERS OF CONSUMER (RETAIL) PRICES IN VARIOUS COUNTRIES

(Source: *Monthly Bulletin of Statistics* of the Statistical Office of the United Nations)  
(Base: 1958 = 100)

Period	Argentina (Buenos Aires)	Australia (a)	Belgium	Brazil (Sao Paulo)	Canada	France (Paris)	Germany (Western)	India	Indonesia (Djakarta)	Ireland	Italy
1955	54	91	93	60	93	83	94	82	..	88	93
1956	60	96	96	73	94	85	96	90	..	92	96
1957	76	99	99	87	97	87	98	95	..	96	97
1958	100	100	100	100	100	100	100	100	(b) 100	100	100
1959	214	102	101	137	101	106	103	104	126	100	100
1960	272	106	102	185	102	110	102	106	169	100	102
1961	309	108	103	256	103	114	105	108	209	103	104
1962	395	108	104	390	104	119	109	112	..	107	109
1962—											
March qtr.	342	108	103	328	104	117	107	109	470	105	107
June	378	108	105	362	104	118	109	111	538	108	108
Sept.	422	108	104	408	105	119	109	114	610	108	109
Dec.	446	108	104	463	105	121	109	114	..	108	111

Period	Japan	Netherlands	New Zealand	Norway	Pakistan (Karachi)	Philippines (Manila)	Sweden	Switzerland	Republic of South Africa (c)	United Kingdom	United States of America
1955	97	91	91	89	85	93	87	95	92	89	93
1956	97	92	94	93	89	95	91	96	94	94	94
1957	100	98	96	95	97	97	95	98	97	97	97
1958	100	100	100	100	100	100	100	100	100	100	100
1959	101	102	104	102	97	99	101	99	101	101	101
1960	105	103	105	102	103	103	105	101	103	102	102
1961	110	105	106	105	105	105	107	103	105	105	103
1962	118	108	109	111	..	..	112	107	106	110	105
1962—											
March qtr.	116	107	108	109	107	108	110	105	105	108	104
June	117	108	109	110	105	109	112	107	106	110	104
Sept.	118	108	110	112	103	113	113	108	107	110	105
Dec.	120	109	110	112	..	..	113	108	107	110	105

(a) Consumer Price Index converted to base 1958 = 100 by Commonwealth Statistician.  
of March–December, 1958 = 100.

(c) Index of European families' expenditure.

(b) Base: Average

NOTE.—Symbol — on each side of an index number (e.g. -95-) indicates that two series have been linked at that period. Symbol — between two index numbers indicates that it is not possible to link two series (because of change in scope, etc.) and therefore the index numbers are not comparable with each other even though they are shown on the same base period.

## WHOLESALE PRICES AND PRICE INDEXES

## § 1. General

Two indexes of wholesale prices have been compiled by the Commonwealth Bureau of Census and Statistics. These are:—

- (i) The Melbourne Wholesale Price Index;
- (ii) The Wholesale Price (Basic Materials and Foodstuffs) Index.

A brief note on the Melbourne Wholesale Price Index, which is now obsolete, is given in § 3 on page 456. After reviewing the list of items and weighting of the Melbourne Wholesale Price Index, the 1930 Conference of Statisticians resolved that a new index of wholesale prices of basic materials and foodstuffs should be compiled. This index, the Wholesale Price (Basic Materials and Foodstuffs) Index, is compiled monthly and extends back to 1928.

## § 2. Wholesale Price (Basic Materials and Foodstuffs) Index

1. **Price Quotations.**—The prices used in the index have in the main been obtained directly from manufacturers and merchants, and, with a few important exceptions, from Melbourne sources. Apart from locally-produced building materials and one or two minor commodities, however, the price movements may be taken as representative of variations in wholesale prices of basic materials in most Australian markets.

Commodities in the index are priced in their primary or basic form wherever possible and, in respect of imported materials, as nearly as may be at the point where they first make effective impact on the local price structure. Thus the prices of imported goods are not taken at the time of import, but rather on an ex-bond (or into factory) basis.

Broadly, where home-consumption prices exist for local products, they have been used in this index. During the year 1950–51, wool for local manufacture was subsidized, and the home-consumption price for wool was used to calculate the index numbers shown in the table on page 456.

2. **Commodities and Grouping.**—For purposes of this index, “basic” materials (as opposed to certain of the foodstuffs) are commodities in the primary or basic forms in which they first enter into productive processes carried out in Australia. The list of items is divided into seven main groups, each of which is sub-divided into goods which are mainly imported, and goods which are mainly home-produced. The percentage of the total aggregate in 1961–62 contributed by each group was as follows:—Metals and coal, 17.85; oils, fats and waxes, 8.30; textiles, 3.11; chemicals, 4.04; rubber and hides, 1.82; building materials, 11.15; foodstuffs and tobacco, 53.73. Goods principally imported comprised 23.79 per cent. of the total aggregate in 1961–62, and goods principally home-produced, 76.21.

A full list of the commodities and the quantity-multipliers (weights) is published in *Labour Report* No. 48, 1960, page 45.

3. **Method of Construction.**—The index is constructed on the simple aggregative fixed-weights formula. The weights (quantity-multipliers) are based on estimates of the average annual consumption of the commodities in Australia during the period 1928–29 to 1934–35 inclusive. Changes in usage, changes of category as between “imported” and “home-produced” for some commodities, and changes in the industrial structure have affected the validity of some of the weights in the index.

During 1956, supplies and prices of potatoes and onions fluctuated violently between abnormally wide limits. These fluctuations were so great as to dominate the movement of the sections of the index in which these items were included, namely, “Foodstuffs and Tobacco”, “Goods Principally Home-produced” and “Total, All Groups”. In the circumstances, neither seasonal adjustment nor conversion of the index to a “changing weights” formula could be applied to eliminate these fluctuations. Accordingly, in order to provide a representative measure of general trend in wholesale prices, the index was reconstructed as from July, 1936, by omitting potatoes and onions.

Consideration is being given to the enlargement of the index to cover additional groups and to revision of the weighting pattern of the index.

4. **Index Numbers.**—Index numbers for each group of commodities and for All Groups for the index of wholesale prices of basic materials and foodstuffs are given in the following table. Current index numbers, on the base: Average of three years ended June, 1939 = 100, are published monthly in the mimeographed statistical bulletin *Wholesale Price (Basic Materials and Foodstuffs) Index* and in the *Monthly Review of Business Statistics*. A table showing index numbers computed to the base 1928 = 100 is published in the *Labour Report*.

## WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX NUMBERS

(Base of each Index: Average of 3 years ended June, 1939 = 100)

Period	Basic Materials							Food-stuffs and Tobacco (a)	Basic Materials and Foodstuffs		
	Metals and Coal	Oils, Fats and Waxes	Textiles	Chemicals	Rubber and Hides	Building Materials	Total		Goods principally imported (b)	Goods principally home-produced (a)	Total, All Groups (a)
1928-29	127	106	129	121	115	95	114	107	91	118	110
1929-30	126	111	99	116	87	94	107	110	94	118	111
1930-31	116	117	80	117	73	96	105	91	100	99	99
1931-32	108	113	77	119	74	95	101	86	100	92	95
1932-33	104	109	75	119	69	95	98	80	97	87	90
1933-34	103	84	102	111	80	94	92	84	89	89	90
1934-35	97	90	78	102	77	93	89	87	92	89	90
1935-36	92	95	100	99	88	93	90	92	95	92	93
1936-37	96	99	118	99	111	99	99	98	99	98	99
1937-38	101	101	100	100	97	104	102	102	102	101	101
1938-39	103	100	82	101	92	97	99	101	99	100	100
1939-40	105	115	104	107	116	108	109	99	111	101	104
1940-41	107	137	111	124	126	128	122	107	133	106	114
1941-42	117	151	118	137	135	135	133	116	153	112	124
1942-43	129	167	147	142	138	163	149	126	176	120	136
1943-44	131	170	150	143	140	174	153	130	182	122	140
1944-45	131	168	152	143	140	175	152	132	182	124	141
1945-46	130	156	152	142	140	177	149	136	178	127	142
1946-47	132	145	191	140	131	180	149	139	177	130	144
1947-48	146	161	283	148	126	190	166	154	192	145	159
1948-49	185	173	342	159	130	198	188	174	201	172	180
1949-50	214	184	434	187	143	225	214	196	223	196	204
1950-51	256	196	641	242	292	268	264	229	256	240	244
1951-52	343	220	577	314	298	370	321	276	288	300	297
1952-53	392	234	607	350	224	404	350	293	292	331	319
1953-54	388	222	566	323	191	363	332	308	271	339	319
1954-55	391	214	510	314	246	372	330	315	277	340	322
1955-56	404	220	456	317	328	415	345	325	292	352	334
1956-57	409	241	520	344	302	463	367	324	311	357	344
1957-58	398	238	437	349	280	453	355	325	301	355	339
1958-59	392	231	362	327	293	423	340	332	283	358	336
1959-60	395	225	403	331	379	431	347	348	281	375	348
1960-61	399	222	387	331	341	439	346	372	278	394	360
1961-62	392	212	400	333	302	439	340	332	270	363	336
1962-63—											
July ..	389	211	405	317	290	439	337	342	269	370	340
August	387	211	390	317	284	439	335	346	270	371	341
September	389	210	390	317	281	439	336	342	270	367	339
October	389	210	400	317	274	439	336	342	272	367	339
November	387	208	405	317	268	439	334	337	272	363	336
December	387	208	420	317	267	439	335	340	272	365	338
January	387	208	458	317	259	439	337	343	274	368	340
February	389	208	454	317	249	439	337	341	272	368	339
March..	389	208	465	316	246	439	338	340	273	366	339

(a) Excluding potatoes and onions from 1936-37. See para. 3 on p. 455. (b) Represents only such imported commodities as are included in the Wholesale Price Index and does not measure changes in the prices of all imports. (c) Subject to revision.

## § 3. Melbourne Wholesale Price Index

An index of Melbourne wholesale prices was first compiled in 1912. It related chiefly to basic materials and foods weighted in accordance with consumption in the years immediately preceding that date. Neither the list of items nor the weighting was varied, except for some changes in the building materials group in 1949. The series has some historical significance as a measure of changes in the prices, since the year 1861, of its component items combined in the proportions in which they were in common use about the year 1910. A description of the index and a list of the commodities included in it were published in *Labour Report* No. 38, 1949, pages 43-45. Index numbers up to the year 1961, the last period for which the index was compiled, were published in *Official Year Book* No. 48, 1962.

## EXPORT PRICES AND PRICE INDEXES

## § 1. Previous Export Price Indexes

1. **1901 to 1917.**—An annual index of export prices has been published by the Bureau since its inception. The first index was compiled annually for the years 1901 to 1916–17. The method of computation was to select all articles of export which were recorded by units of quantity, and to apply to the quantities of these export commodities actually exported during any year the average price per unit ruling in the year 1901 (adopted as the base year). The “total value” so obtained was divided into the total recorded value of these exports for the year concerned and the result (multiplied by 1,000) was the export price index number for that year.

2. **1918 to 1930.**—The method was changed in 1918. Weights for all principal exports were calculated, based on the average quantities of exports for the nineteen and a half years from 1st January, 1897, to 30th June, 1916. To these weights were applied the “average unit export values” of each export in successive years, and a weighted aggregative index of “price” variations was derived. This index was published for the years 1897 to 1929–30. Particulars of this index were last published in Official Year Book No. 24, page 147.

3. **1928 to 1962.**—(i) *General.* After the 1914–18 War, the relative importance of different exports changed considerably, and the pattern of exports varied considerably from year to year. For these reasons, two new series of monthly export price indexes—one using fixed weights and the other using changing weights—were published in 1937, compiled back to 1928. The data on which both series were based differed from those used in the previous series of annual index numbers. The most important change was the use of actual (or calculated) export prices in place of the “unit values” declared at the Customs. Brief notes on these two indexes are given below. A full description of both indexes was last published in Official Year Book No. 48, 1962, pages 500–4.

(ii) *The Fixed Weights Index.* This was a weighted aggregative index of price variations. It was compiled back to 1928, with that year taken as base. In later years, it was published on the base: Average of three years ended June, 1939 = 100. The original weights (used for the period 1928 to 1936) were the average annual exports (production in the case of gold) during the five years 1928–29 to 1932–33. From July, 1936, the weights were revised and were based on average annual exports (production in the case of gold) during the three years 1933–34 to 1935–36. This index was published from 1937 until July, 1962, after which it was replaced by the current Export Price Index described in § 2 below.

(iii) *The Changing Weights Index.* This index was designed for shorter period comparisons—from one or more months of the current year to the corresponding months of the previous year. In computing these index numbers, the “quantity multipliers” were the quantities actually exported (sold, in some cases) in the months (or periods) to which the index numbers relate. This index was discontinued in 1962.

## § 2. The Current Export Price Index

1. *General.*—The current Export Price Index was first published in August, 1962, but index numbers were compiled back to July, 1959. The reference base of this index is: Year 1959–60 = 100. This index is a fixed-weights index, and its purpose (as was that of the previous fixed-weights index) is to provide comparisons monthly, over a limited number of years, of the level of export prices of the selected items, making no allowance for variations in quantities exported. The index numbers are thus measures of price change only. The price series used in the index relate to specified standards for each commodity and in most cases are combinations of prices for a number of representative grades, types, etc. For some commodities, price movements in the predominant market, or markets, are used, while for other commodities average realizations in all export markets are used. As nearly as possible, prices used are on the basis f.o.b. at the main Australian ports of export. The index is compiled by the method known as “weighted average of price relatives”.

2. *Composition and Weighting.*—There are 29 items in the current index compared with 20 items in the previous index. These 29 items have constituted approximately 83 per cent. of the total value of Australian exports in recent years. (The 20 items in the previous index, which in pre-war years constituted about 85 per cent. of total exports, and for most of the post-war period averaged about 80 per cent. of total exports, in recent years constituted about 73 per cent. of total exports.) The weights for the current index are based on average

annual values of exports during the five years 1956-57 to 1960-61, whereas the weights for the previous index were based on average annual exports during the three years 1933-34 to 1935-36. A comparison of the old and new indexes, showing percentage contributions of the various items to the total index in the year 1959-60, is set out in the table below.

### COMPARISON OF PREVIOUS AND CURRENT EXPORT PRICE INDEXES

#### PERCENTAGE CONTRIBUTION OF ITEMS TO ALL GROUPS INDEXES IN 1959-60

Item	Percentage contribution to All Groups Index	
	Previous Index	Current Index
Wool .. .. .	51.24	50.73
Beef .. .. .	4.68	6.71
Lamb .. .. .	2.22	0.76
Mutton .. .. .	0.36	0.59
Pork .. .. .	0.32	(a)
Canned beef .. .. .	(a)	1.65
Canned mutton .. .. .	(a)	0.21
Processed milk .. .. .	(a)	1.36
Butter .. .. .	9.46	4.02
Cheese .. .. .	(a)	0.64
Eggs .. .. .	(a)	0.47
Wheat and flour .. .. .	15.02	10.11
Barley .. .. .	(a)	1.77
Oats .. .. .	(a)	0.66
Sultanas .. .. .	1.21	1.06
Raisins .. .. .	0.10	(b)
Currants .. .. .	0.35	0.12
Canned pineapples .. .. .	(a)	0.20
Canned apricots .. .. .	(a)	0.11
Canned peaches .. .. .	(a)	0.37
Canned pears .. .. .	(a)	0.68
Sugar .. .. .	2.89	3.99
Cattle hides .. .. .	0.55	0.72
Calf skins .. .. .	0.09	(c)
Tallow .. .. .	0.51	0.54
Coal .. .. .	(a)	0.63
Iron and steel .. .. .	(a)	3.48
Copper .. .. .	0.27	1.57
Tin .. .. .	0.27	(a)
Zinc .. .. .	2.50	1.23
Lead .. .. .	4.07	2.97
Silver .. .. .	0.61	0.66
Gold .. .. .	3.28	1.99
<b>Total .. .. .</b>	<b>100.00</b>	<b>100.00</b>

(a) Not included. (b) Included in weight for sultanas. (c) Included in weight for cattle hides.

The following table sets out a list of the items, and groups of items, in the new index, together with the percentage contribution of each item and group to the All Groups index in the reference base year 1959-60. The weights used for some of the items are adjusted to cover some related commodities which are not priced directly. The most important instances of this are wool, which includes wool exported on sheepskins, and copper, zinc, lead and silver, which include the estimated metallic content of ores and concentrates exported. In the previous index, the weight for gold was derived from production instead of export figures. For the period 1956-57 to 1960-61, production and exports of gold were similar, and therefore in the new index the weight for gold (as for the other items) is based on average annual exports during the period.

## EXPORT PRICE INDEX

LIST OF ITEMS AND PERCENTAGE CONTRIBUTION OF ITEMS AND GROUPS TO  
ALL GROUPS INDEX IN 1959-60

Group and item	Percentage contribution to All Groups Index
Wool .. .. .	50.73
Meats—	
Beef .. .. .	6.71
Lamb .. .. .	0.76
Mutton .. .. .	0.59
Canned—Beef .. .. .	1.65
Mutton .. .. .	0.21
<i>Total, Meats</i> .. .. .	9.92
Dairy Produce—	
Processed milk .. .. .	1.36
Butter .. .. .	4.02
Cheese .. .. .	0.64
Eggs .. .. .	0.47
<i>Total, Dairy Produce</i> .. .. .	6.49
Cereals—	
Wheat and flour .. .. .	
Barley .. .. .	10.11
Oats .. .. .	1.77
<i>Total, Cereals</i> .. .. .	0.66
	12.54
Dried and Canned Fruits—	
Dried—Sultanas .. .. .	1.06
Currants .. .. .	0.12
Canned—Pineapples .. .. .	0.20
Apricots .. .. .	0.11
Peaches .. .. .	0.37
Pears .. .. .	0.68
<i>Total, Dried and Canned Fruits</i> .. .. .	2.54
Sugar .. .. .	3.99
Hides and Tallow—	
Cattle hides .. .. .	0.72
Tallow .. .. .	0.54
<i>Total, Hides and Tallow</i> .. .. .	1.26
Metals and Coal—	
Coal .. .. .	0.63
Iron and steel .. .. .	3.48
Copper .. .. .	1.57
Zinc .. .. .	1.23
Lead .. .. .	2.97
Silver .. .. .	0.66
<i>Total, Metals and Coal</i> .. .. .	10.54
Gold .. .. .	1.99
<b>Total</b> .. .. .	<b>100.00</b>

3. Index Numbers.—Index numbers for each of the groups and “All Groups” are shown in the table below. The yearly index numbers are simple averages of the twelve monthly index numbers in each year.

## EXPORT PRICE INDEX NUMBERS

(Base of each Index: Year 1959–60 = 100)

Period	Wool	Meats	Dairy Produce	Cereals	Dried and Canned Fruits	Sugar	Hides and Tallow	Metals and Coal	Gold	All Groups
1959–60 ..	100	100	100	100	100	100	100	100	100	100
1960–61 ..	92	104	82	99	99	101	92	97	100	95
1961–62 ..	97	100	81	106	(a) 95	91	84	91	100	(a) 96
1959–60—										
July ..	(b) 96	102	100	101	107	98	117	95	100	98
August ..	105	98	105	102	103	103	116	98	100	103
September ..	101	94	108	100	102	98	113	98	100	100
October ..	101	93	110	99	102	99	107	99	100	100
November ..	99	91	112	100	102	103	92	100	100	100
December ..	103	96	112	100	102	103	96	101	100	102
January ..	103	101	108	100	98	99	96	102	100	102
February ..	98	106	98	99	96	98	96	101	100	99
March ..	98	104	91	99	98	100	94	101	100	98
April ..	101	107	85	100	99	99	91	103	100	100
May ..	98	104	85	99	97	101	91	102	100	98
June ..	98	105	86	100	95	99	91	101	100	98
1960–61—										
July ..	92	105	89	99	96	98	88	100	100	95
August ..	85	103	86	98	96	99	88	99	100	91
September ..	86	102	82	102	98	102	95	98	100	92
October ..	85	101	85	102	98	103	97	97	101	92
November ..	89	98	84	100	99	98	96	97	101	93
December ..	88	99	83	99	99	99	92	95	101	92
January ..	89	100	82	98	99	97	92	95	101	92
February ..	92	108	80	98	100	98	92	95	101	95
March ..	94	110	78	98	100	98	96	96	100	96
April ..	101	109	78	99	98	101	94	95	100	99
May ..	101	107	78	99	101	100	90	97	100	99
June ..	99	108	78	99	101	117	88	95	100	99
1961–62—										
July ..	(b) 99	101	78	100	100	110	90	93	100	98
August ..	99	101	78	101	98	102	92	93	101	98
September ..	98	100	78	101	98	94	90	91	100	96
October ..	94	103	77	102	96	90	86	90	100	94
November ..	92	100	79	102	95	87	83	91	100	93
December ..	92	99	84	105	96	89	83	91	100	94
January ..	92	101	83	107	95	87	83	90	100	94
February ..	98	101	83	108	93	82	82	91	100	97
March ..	99	97	83	107	93	84	81	91	100	97
April ..	99	97	82	111	93	90	81	90	100	98
May ..	99	97	82	112	(a) 93	85	79	90	100	(a) 98
June ..	99	97	86	112	(a) 92	87	78	90	100	(a) 98
1962–63—										
July ..	98	99	85	112	(a) 90	86	76	89	100	(a) 97
August ..	92	101	85	112	(a) 91	88	75	86	100	(a) 94
September ..	92	102	85	111	(a) 91	86	74	87	100	(a) 94
October ..	96	102	85	109	(a) 91	92	74	86	100	(a) 96
November ..	98	102	88	110	(a) 91	91	74	88	100	(a) 97
December ..	101	(a) 101	88	105	(a) 91	94	74	88	100	(a) 98
January ..	112	(a) 101	88	105	(a) 91	(a) 93	73	88	100	(a) 104
February ..	110	(a) 101	88	104	(a) 91	(a) 109	70	(a) 91	100	(a) 104
March ..	(a) 112	(a) 99	90	104	(a) 89	(a) 128	69	(a) 91	100	(a) 105

(a) Subject to revision.

(b) Nominal.

4. Link between Current and Previous Indexes.—In order to show approximate movements in export prices over a long period, the “All Groups” indexes of the previous and current series have been linked together at the year 1959–60, the earliest year for which the new index has been compiled. The table below shows this linked series and a long-term price index for wool, which is the most important single component in the movement of the “All Groups” index.

## EXPORT PRICE INDEX NUMBERS—LINKED SERIES

(Base of each Index: Year 1959-60 = 100)

Period							Wool	All Groups
1936-37	..	..	..	..	..	..	29	30
1937-38	..	..	..	..	..	..	23	27
1938-39	..	..	..	..	..	..	19	22
1939-40	..	..	..	..	..	..	23	26
1940-41	..	..	..	..	..	..	24	28
1941-42	..	..	..	..	..	..	24	28
1942-43	..	..	..	..	..	..	28	30
1943-44	..	..	..	..	..	..	28	31
1944-45	..	..	..	..	..	..	28	34
1945-46	..	..	..	..	..	..	28	39
1946-47	..	..	..	..	..	..	41	54
1947-48	..	..	..	..	..	..	68	75
1948-49	..	..	..	..	..	..	86	88
1949-50	..	..	..	..	..	..	111	101
1950-51	..	..	..	..	..	..	235	173
1951-52	..	..	..	..	..	..	133	125
1952-53	..	..	..	..	..	..	145	128
1953-54	..	..	..	..	..	..	145	125
1954-55	..	..	..	..	..	..	127	114
1955-56	..	..	..	..	..	..	109	105
1956-57	..	..	..	..	..	..	136	117
1957-58	..	..	..	..	..	..	111	102
1958-59	..	..	..	..	..	..	85	90
1959-60	..	..	..	..	..	..	100	100
1960-61	..	..	..	..	..	..	92	95
1961-62	..	..	..	..	..	..	97	(a) 96
1962-63—								
July	..	..	..	..	..	..	98	(a) 97
August	..	..	..	..	..	..	92	(a) 94
September	..	..	..	..	..	..	92	(a) 94
October	..	..	..	..	..	..	96	(a) 96
November	..	..	..	..	..	..	98	(a) 97
December	..	..	..	..	..	..	101	(a) 98
January	..	..	..	..	..	..	112	(a) 104
February	..	..	..	..	..	..	110	(a) 104
March	..	..	..	..	..	..	(a) 112	(a) 105

(a) Subject to revision.

## CONTROL OF PRICES DURING AND SINCE THE 1939-45 WAR

1. General.—An account of the measures taken by the Commonwealth Government to control prices from September, 1939, until 29th May, 1948 (the date of the Prices Referendum), was given in Official Year Book No. 37, pages 458-64.

2. Transfer of Price Control to the States.—Consequent upon the rejection of the proposal embodied in the Prices Referendum held on 29th May, 1948, that permanent power to control rents and prices (including charges) be conferred on the Commonwealth Government, responsibility for price fixation was assumed by the State Governments and steps were taken to pass State Prices Acts. These Acts were proclaimed to operate simultaneously on 20th September, 1948. Except in the case of Queensland, each Act was to remain in force for a specific period, but the period varied from State to State.



On 20th September, 1948, each State Government issued declarations covering uniform lists of goods and services, which were brought under price control. Existing Commonwealth Prices Regulation Orders continued to apply to these goods and services until specially varied in accordance with the terms of the State legislation. At the same time, the Commonwealth Government issued an identical list of declared items to operate in the Australian Capital Territory and other Territories of the Commonwealth.

In the operation of State price control, the State Prices Commissioners collaborated closely. Conferences of Commissioners were held at intervals of approximately two months. Thus a large degree of uniformity was attained in controlling and decontrolling items and in the fixation of margins and prices of major items.

Since 1952, price control has been progressively modified in all States. General price control ceased in Western Australia on 31st December, 1953; in Tasmania on 31st October, 1954; in Victoria on 31st December, 1954; in the Australian Capital Territory on 10th February, 1955; and in Queensland during 1961. In New South Wales, general control of prices was suspended on 15th April, 1955, but was temporarily restored on some items from July, 1955, to September, 1956.

**3. Price Stabilization.**—Expenditure by the Commonwealth Government on price stabilization subsidies reached a peak in 1947–48, and since then the Commonwealth Government has progressively reduced the range of commodities eligible for subsidy.

In addition to those subsidies which had been an integral part of the Price Stabilization Plan, the Commonwealth Government paid bounties and subsidies for assistance to primary production, and these payments also had a stabilizing influence on prices.

For particulars of expenditure by the Commonwealth Government on price stabilization, see Official Year Book No. 38, page 414, and for other subsidies and bounties, see Chapter XXI. Public Finance.

## WAGES

### § 1. Arbitration and Wages Boards Acts and Associated Legislation

**1. General.**—Particulars regarding the operation of Commonwealth and State Laws for the regulation of wages, hours and other conditions of employment were first compiled for the year 1913, and revised particulars have appeared annually in the *Labour Report* and in issues of the Official Year Book prior to No. 38. A summary of the Commonwealth legislation and brief particulars of Commonwealth and State industrial tribunals are given in the following paragraphs.

**2. Commonwealth.**—Under placitum (xxxv) of section 51 of the Commonwealth of Australia Constitution, the Commonwealth Parliament is empowered to make laws with respect to “conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State”. The Parliament has made such a law, namely the *Conciliation and Arbitration Act*.

This Act defines an “industrial dispute” as “(a) A dispute (including a threatened, impending or probable dispute) as to industrial matters which extends beyond the limits of any State; and (b) a situation which is likely to give rise to a dispute as to industrial matters which so extends; and includes—(c) such a dispute in relation to employment in an industry carried on by, or under the control of, a State or an authority of a State; (d) a dispute in relation to employment in an industry carried on by, or under the control of, the Commonwealth or an authority of the Commonwealth, whether or not the dispute extends beyond the limits of any one State; and (e) a claim which an organization is entitled to submit to the Commission under section eleven A of the *Public Service Arbitration Act* 1920–1960 or an application or matter which the Public Service Arbitrator has refrained from hearing, or from further hearing, or from determining under section fourteen A of that Act, whether or not there exists in relation to the claim, application or matter a dispute as to industrial matters which extends beyond the limits of any one State.”

The *Conciliation and Arbitration Act* was extensively amended by an Act (No. 44 of 1956) assented to on 30th June, 1956. This amendment altered the structure of the arbitration machinery by separating the judicial functions from the conciliation and arbitration functions. The Commonwealth Industrial Court was established to deal with judicial matters under the Act and the Commonwealth Conciliation and Arbitration Commission to handle the functions of conciliation and arbitration. A summary of the provisions of the *Conciliation and Arbitration Act* 1904–1961 is given in the following paragraphs.

The Commonwealth Industrial Court is at present composed of a Chief Judge and three other Judges. The jurisdiction of the Court shall be exercised by not less than two Judges, except in the following circumstances. A single Judge may exercise the jurisdiction of the Court with respect to the dismissal or injury of an employee on account of industrial action, interpretation of awards, questions concerning eligibility of membership of an organization, disputes between an organization and its members and a prescribed matter of practice or procedure. A single Judge may refer a question of law for the opinion of the Court constituted by not less than two Judges. The Court is a Superior Court of Record with the same power to punish contempts of its power and authority as is possessed by the High Court. In general, decisions of the Industrial Court are final; however, an appeal lies to the High Court, but only when the latter grants leave to appeal. The Act provides for the registration of associations of employees and employers and for inquiries to be held concerning disputed elections in organizations; and certain powers in connexion therewith are, by the Act, given to the Industrial Court. Provision is also made for the Commission to exercise the powers of the Court with regard to an application for cancellation of registration of an organization. Any such change of jurisdiction must be notified by proclamation. This provision could be used if the powers of the Court in this regard were declared, in whole or in part, to be invalid.

Special provision is made concerning the right of audience before the Commonwealth Industrial Court. Briefly, except in proceedings which, in general, involve questions of law or offences against the Act, parties are able to elect whether to appear personally or to be represented by lawyers or officials. Even in proceedings involving questions of law, except appeals from decisions by other Courts to the Industrial Court, on matters arising under this Act or the *Public Service Arbitration Act 1920-1960*, the parties may, if they wish and the Court grants leave, be represented by officials.

The Commonwealth Conciliation and Arbitration Commission at present consists of a President, five Deputy Presidents, a Senior Commissioner, seven Commissioners and three Conciliators. The Commission is empowered to prevent or settle industrial disputes by conciliation or arbitration, and to make suggestions and to do such things as appear right and proper for (a) effecting a reconciliation between parties to industrial disputes; (b) preventing and settling industrial disputes by amicable agreement; and (c) preventing and settling, by conciliation or arbitration, industrial disputes not prevented or settled by amicable agreement. The Commission may exercise its powers of its own motion or on the application of a party.

The President may assign a Commissioner to deal with industrial disputes relating to particular industries, or members of the Commission to deal with a particular industrial dispute. However, subject to the approval of the President, it is the duty of the Senior Commissioner to organize and allocate the work of the Commissioners and Conciliators.

When an industrial dispute occurs or is likely to occur, a Commissioner shall take steps for the prompt prevention or settlement of that dispute by conciliation or, if in his opinion conciliation is unlikely to succeed or has failed, by arbitration. A Commissioner may arrange with the Senior Commissioner for a Conciliator to assist the parties to reach an amicable agreement and shall do so if the parties so request. If an agreement is reached, a memorandum of its terms shall be made in writing, and may be certified by the Commission. A certified memorandum shall have the same effect as an award.

Only the Commission in Presidential Session, that is, the Commission constituted by at least three presidential members nominated by the President, has the power to make awards, or to certify agreements, concerning standard hours, basic wages and long-service leave.

Upon application by a party to an industrial dispute, a Commissioner shall consult with the President as to whether in the public interest any matter in dispute should be dealt with by a Commission constituted by not less than three members nominated by the President, at least one of whom shall be a presidential member and one, where practicable, the Commissioner concerned. The President may direct the Commission to hear the matter in dispute; however, after consideration, the Commission may refer the matter in dispute back for determination to the Commissioner originally dealing with the dispute.

An appeal against the decision of a Commissioner shall be heard by not less than three members nominated by the President, of whom at least two shall be presidential members of the Commission. However, an appeal will not be heard unless the Commission considers it is necessary as a matter of public interest. The President, after taking account of the views of the parties to a dispute, may appoint a member of the Commission to take evidence on behalf of a presidential bench of the Commission, so that it may have this evidence before it when it commences its hearing.

Full benches of the Commission not constituted by the same persons may sit in joint session at the direction of the President when he considers it desirable and has the opinion that a question is common to the matters before those benches. A joint session may be held whether the benches concerned are constituted pursuant to the *Conciliation and Arbitration Act* or the *Public Service Arbitration Act*, and whether they are constituted to hear references or appeals. However, it is left to each appropriate full bench to determine any of the matters before it.

Provision is also made in the Act for a presidential member of the Commission to handle industrial matters in connexion with the maritime industries, the Snowy Mountains Area and the stevedoring industry, except in those matters for which the Act requires that the Commission shall be constituted by more than one member.

The Commonwealth Conciliation and Arbitration Commission also deals with disputes and industrial matters, interstate or intra-state, associated with undertakings or projects of the Commonwealth Government which have been declared by the Minister to be Commonwealth projects for the purposes of this Act. In effect, this places employees of Commonwealth projects, so declared, under the jurisdiction of the Commission. The Minister has the power to exempt certain persons or classes of persons working on these projects from the jurisdiction of the Commission.

The Commission may make an award in relation to an industrial dispute concerning employees of a Commonwealth project or when the Public Service Arbitrator refrains from dealing with claims made by a Public Service employee organization or consents to the claims being presented to the Commission, though such an award may be inconsistent with a law of the Commonwealth relating to salaries, wages, rates of pay or terms or conditions of service of employees in the Public Service as defined by section 3 of the *Public Service Arbitration Act* 1920-1960, not being the *Commonwealth Employees' Compensation Act* 1930-1959, the *Commonwealth Employees' Furlough Act* 1943-1959, the *Superannuation Act* 1922-1959 or any other prescribed Act.

The Act provides that where a State law, or an order, award, decision or determination of a State industrial authority is inconsistent with or deals with a matter dealt with in an award of the Commission, the latter shall prevail, and the former, to the extent of the inconsistency or in relation to the matter dealt with, shall be invalid.

For further particulars regarding Commonwealth arbitration legislation, see the annual *Labour Report*.

3. **States.**—In each State, Industrial Tribunals have been established to regulate and arbitrate in industrial matters. Brief particulars are given in the following paragraphs.

(i) *New South Wales.* The controlling authority is the Industrial Commission of New South Wales, consisting of a President and five other Judges. Subsidiary tribunals are the Conciliation Commissioners, the Apprenticeship Commissioner, Conciliation Committees and Apprenticeship Councils constituted for particular industries. Each Conciliation Committee consists of a Conciliation Commissioner as Chairman and equal numbers of representatives of employers and employees. The Apprenticeship Commissioner and the members of the Conciliation Committee for an industry constitute the Apprenticeship Council for the industry. These subsidiary tribunals may make awards binding on industries, but an appeal to the Industrial Commission may be made against any award. Special Commissioners with conciliatory powers and limited arbitration powers may be appointed. Compulsory control commenced in 1901, after the earlier Acts of 1892 and 1899 providing for voluntary submission of matters in dispute had proved abortive.

(ii) *Victoria.* The authorities are separate Wages Boards for the occupations and industries covered, each consisting of a chairman and equal numbers of representatives of employers and employees, and a Court of Industrial Appeals, the latter presided over by a Judge of the County Court. The system was instituted in the State in 1896, and represented the first example in Australia of legal regulation of wage rates.

(iii) *Queensland.* Legal control was first instituted in 1907 with the passing of the *Wages Board Act*. The *Industrial Conciliation and Arbitration Act* of 1961 established the Industrial Conciliation and Arbitration Commission and preserved and continued in existence the Industrial Court. The Industrial Court is constituted by the President (a Judge of the Supreme Court of Queensland) sitting alone, and the Full Industrial Court by the President and two Commissioners. The Conciliation and Arbitration Commission is constituted

by a Commissioner sitting alone; and the Full Bench of the Commission by at least three Commissioners. Not more than five Commissioners shall be appointed. A Commissioner shall not be capable of being a member of the Executive Council or of the Legislative Assembly, and shall not take part in the management of any business.

(iv) *South Australia.* The principal tribunal is the Industrial Court, composed of the President (a person eligible for appointment as a Judge of the Supreme Court) who may be joined by two assessors employed in the industry concerned; Deputy Presidents may also be appointed. There are also Industrial Boards, for the various industries, consisting of a chairman and equal numbers of representatives of employers and employees. Another tribunal provided for under the Industrial Code is the Board of Industry, composed of a President, who shall be the President or a Deputy President of the Industrial Court, and four Commissioners. Broadly speaking, the functions of these three tribunals are:—(i) the Industrial Court delivers awards concerning workers who do not come under the jurisdiction of the Industrial Boards and hears appeals from decisions of Industrial Boards; (ii) the determinations of the Industrial Boards apply to most industries in the metropolitan area; however, for employees of the Public Service, Railways, and councils of a municipality or district, determinations of Industrial Boards apply to the whole of the State; (iii) the Board of Industry declares the "living wage".

(v) *Western Australia.* The system of control comprises an Arbitration Court, Industrial Boards, Conciliation Committees and a Conciliation Commissioner. Employers and employees are equally represented on both Boards and Committees. The Court consists of a Judge of the Supreme Court and two members. Commissioners may also be appointed by the Minister for the settlement of particular disputes. Legal control dates back to 1900.

The Western Australian Coal Industry Tribunal, established under the *Mining Act*, has power to determine any industrial matter in the coal mining industry. It consists of a chairman and four other members (two representatives each of employers and employees). Boards of reference may be appointed by the Tribunal and decisions of the Tribunal may be reviewed by the Court of Arbitration on the application of a party subject to the decision.

(vi) *Tasmania.* The authority consists of Wages Boards for separate industries, comprising a Chairman (who is common to all Wages Boards), appointed by the Governor, and equal numbers of representatives of employers and employees, appointed by the Minister administering the Act. The system was instituted in 1910.

## § 2. Rates of Wage and Hours of Work

1. *General.*—This section contains indexes (with base: year 1954 = 100) of minimum weekly and hourly rates of wage and standard hours of work for adult males and adult females for Australia and each State. In the indexes, there are 15 industrial groups for adult males and 8 industrial groups for adult females. For relevant periods, these indexes replace cognate indexes (base: year 1911 = 1,000 for males and April, 1914 = 1,000 for females) published in issues prior to No. 46, 1960. The current indexes are based on the occupation structure existing in 1954. Weights for each industry and each occupation were derived from two sample surveys made in that year. The first was the Survey of Awards in April, 1954, which showed the number of employees covered by individual awards, determinations and agreements. This provided employee weights for each industry as well as a basis for the Survey of Award Occupations made in November, 1954. This second survey showed the number of employees in each occupation within selected awards, etc., thereby providing occupation weights.

The industrial classification used in the current indexes, shown in the table on page 469, does not differ basically from the previous classification, the alterations being largely in the arrangement of classes. The former Pastoral, Agricultural, etc., group and the Domestic part of the group Amusement, Hotels, Personal Service, etc. are excluded from the current indexes because of coverage difficulties.

The minimum wage rates and standard hours of work used in the current indexes are for representative occupations within each industry. They have been derived entirely from representative awards, determinations and agreements in force at the end of each month or quarter, commencing with 31st March, 1939, for adult males and 31st March, 1951, for adult

females. From January, 1957, particulars for adult males have been available as at the end of each month. The index for adult males includes rates and hours for 3,417 award designations. However, as some of these designations are operative within more than one industry, or in more than one State, the total number of individual award occupations is 2,315. For adult females, the corresponding numbers are 1,103 and 518. Using the industry and occupation weights derived from the surveys described above, these rates and hours were combined to give weighted averages for each industrial group for each State and Australia. Weighted averages of the components of the total minimum weekly wage rate, i.e. basic wage, margin and loading, were calculated separately for employees covered by Commonwealth awards, etc., and for those covered by State awards, etc. (see pages 470-1).

Because the indexes are designed to measure movements in prescribed minimum rates of "wages" as distinct from "salaries", those awards, etc., which relate solely or mainly to salary earners are excluded.

A more detailed description of the current indexes of minimum rates of wage and standard hours of work is given in the *Labour Report*, which also contains an extensive tabular presentation of the minimum rates of wage for adult males and females in the principal occupations in the capital city of each State. Further particulars of weekly wage rates and index numbers will be found in the statistical bulletins S.B. 123—*Minimum Weekly Wage Rates, 1939 to 1959*, and S.B. 124—*Minimum Weekly Wage Rates, January, 1960 to June, 1962*. Current figures are published in the monthly bulletin *Wage Rates and Earnings*.

2. **Weekly Wage Rates.**—(i) *Adult Males—States.* The following table shows, for each State and Australia, the weighted average minimum weekly rates of wage payable to adult male workers for a full week's work, and index numbers at the dates specified.

#### WEEKLY WAGE RATES: ADULT MALES, ALL GROUPS(a)

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(b) PAYABLE FOR A FULL WEEK'S WORK  
(EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

Date	N.S.W.		Vic.		Qld		S.A.		W.A.		Tas.		Aust.	
RATES OF WAGE(c)														
31st December, 1945..	122	6	121	1	118	1	116	0	120	4	115	7	120	7
" " 1950..	206	2	201	9	195	2	197	11	200	7	198	0	202	0
" " 1955..	305	3	295	7	283	6	285	0	300	1	293	7	297	0
" " 1960..	362	10	349	11	350	8	342	2	358	1	351	6	355	0
" " 1962..	373	1	363	6	359	8	356	2	365	2	364	3	366	3

#### INDEX NUMBERS

(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100)

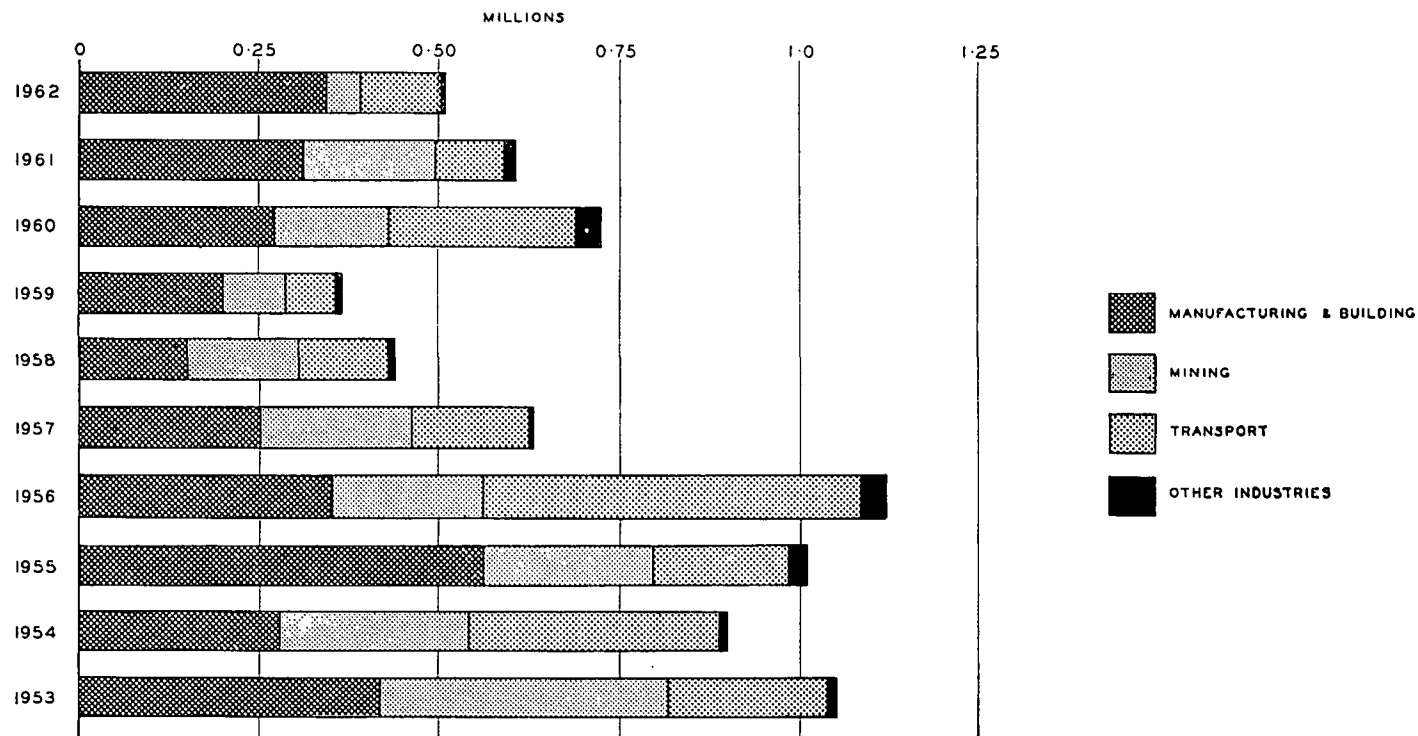
31st December, 1945..	43.4	42.9	41.8	41.1	42.6	40.9	42.7
" " 1950..	73.0	71.4	69.1	70.1	71.0	70.1	71.5
" " 1955..	108.1	104.7	100.4	100.9	106.3	104.0	105.2
" " 1960..	128.5	123.9	124.2	121.2	126.8	124.6	125.7
" " 1962..	132.1	128.7	127.4	126.1	129.3	129.0	129.7

(a) Excludes rural. (b) As prescribed in awards, determinations and agreements. (c) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

(ii) *Adult Males—Industrial Groups.* The following table shows for Australia the weighted average minimum weekly rates of wage and index numbers in each industrial group and for all groups (excluding rural) at the dates specified.

# INDUSTRIAL DISPUTES, AUSTRALIA, 1953 to 1962

WORKING DAYS LOST - INDUSTRIAL GROUPS





WEEKLY WAGE RATES: ADULT MALES, INDUSTRIAL GROUPS, AUSTRALIA

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(a) PAYABLE FOR A FULL WEEK'S WORK  
(EXCLUDING OVERTIME) AND INDEX NUMBERS C7 WAGE RATES

Industrial group	31st December—				
	1945	1950	1955	1960	1962

RATES OF WAGE(b)

	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Mining and quarrying .. ..	138	8	259	7	366	10	414	8	420	11
Manufacturing—										
Engineering, metals, vehicles, etc. ..	122	2	201	8	294	9	350	2	361	5
Textiles, clothing and footwear ..	115	10	197	5	285	0	340	5	351	11
Food, drink and tobacco ..	119	11	201	5	295	9	352	3	363	1
Sawmilling, furniture, etc. ..	117	11	196	0	288	10	346	2	356	4
Paper, printing, etc. ..	127	8	214	3	312	6	379	2	391	9
Other manufacturing ..	118	7	197	7	291	4	347	2	359	2
All Manufacturing Groups ..	120	8	200	10	294	1	350	6	361	10
Building and construction .. ..	119	8	198	7	295	6	357	6	370	0
Railway services .. ..	117	9	195	10	290	11	346	6	357	7
Road and air transport .. ..	121	7	197	11	294	3	352	6	364	2
Shipping and stevedoring(c) .. ..	117	7	196	7	276	11	344	7	356	3
Communication .. ..	123	9	213	4	316	6	384	11	397	1
Wholesale and retail trade .. ..	119	5	200	10	297	9	357	1	367	10
Public authority (n.e.i.) and community and business services .. ..	113	9	192	1	289	10	348	1	358	1
Amusement, hotels, personal service, etc. ..	115	3	192	4	283	7	337	4	348	4
All Industrial Groups(d) ..	120	7	202	0	297	0	355	0	366	3

INDEX NUMBERS

(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100)

Mining and quarrying .. ..	49.1	91.9	129.9	146.8	149.0
Manufacturing—					
Engineering, metals, vehicles, etc. ..	43.3	71.4	104.4	124.0	128.0
Textiles, clothing and footwear ..	41.0	69.9	100.9	120.5	124.6
Food, drink and tobacco ..	42.5	71.3	104.7	124.7	128.6
Sawmilling, furniture, etc. ..	41.8	69.4	102.3	122.6	126.2
Paper, printing, etc. ..	45.2	75.9	110.7	134.3	138.7
Other manufacturing ..	42.0	70.0	103.2	122.9	127.2
All Manufacturing Groups ..	42.7	71.1	104.1	124.1	128.1
Building and construction .. ..	42.4	70.3	104.6	126.6	131.0
Railway services .. ..	41.7	69.3	103.0	122.7	126.6
Road and air transport .. ..	43.0	70.1	104.2	124.8	128.9
Shipping and stevedoring(c) .. ..	41.6	69.6	98.1	122.0	126.1
Communication .. ..	43.8	75.5	112.1	136.3	140.6
Wholesale and retail trade .. ..	42.3	71.1	105.4	126.4	130.2
Public authority (n.e.i.) and community and business services .. ..	40.3	68.0	102.6	123.2	126.8
Amusement, hotels, personal service, etc. ..	40.8	68.1	100.4	119.4	123.3
All Industrial Groups(d) ..	42.7	71.5	105.2	125.7	129.7

(a) As prescribed in awards, determinations and agreements. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. (c) Includes the value of keep, where supplied. (d) Excludes rural.

(iii) *Adult Males—Components of Total Wage Rate.* A dissection of weighted average minimum weekly wage rates for adult males into the three components of the total minimum wage, i.e. basic wage, margin and loading, is given in the following two tables, separate particulars being shown for employees covered by awards, etc., within Commonwealth and



State jurisdictions. For the purposes of the index, the Commonwealth jurisdiction embraces awards of, or agreements registered with, the Commonwealth Conciliation and Arbitration Commission, and determinations of the Commonwealth Public Service Arbitrator. State jurisdictions embrace awards or determinations of, or agreements registered with, State industrial tribunals, together with certain unregistered agreements, where these are dominant in the particular industries to which they refer.

The basic wage rates shown herein are weighted averages of the rates prescribed in awards, etc., for the occupations included in the index for each State. For industries other than mining, metropolitan basic wage rates have generally been used. However, there are a number of occupations for which basic wage rates other than the metropolitan rate are prescribed. Also, in some States at various times, State Government employees under Commonwealth awards have been paid State basic wage rates, and the basic wage rates of some employees have been subject to automatic quarterly adjustments while those of other employees within the same jurisdiction have remained unchanged. In all such cases, the basic wage rate actually paid is used in tables below. For these and other reasons, the weighted average basic wage rates differ, in the majority of cases, from the metropolitan basic wage rates shown in other sections of this chapter.

Margins are minimum amounts, in addition to the basic wage, awarded to particular classifications of employees for features attaching to their work, such as skill, experience, arduousness and other like factors.

Loadings are minimum amounts, in addition to the basic wage and margin (if any), awarded for various kinds of disabilities associated with the performance of work, or to meet particular circumstances. They include payments such as industry loadings and other general loadings prescribed in awards, etc., for the occupations included in the index.

For a more detailed description of this dissection of weekly wage rates into components and for tables for each State and Australia, according to jurisdiction, extending back to 1939, see the statistical bulletins S.B. 123—*Minimum Weekly Wage Rates, 1939 to 1959*, and S.B. 124—*Minimum Weekly Wage Rates, January, 1960, to June, 1962*.

(a) *States.* The following table shows the components of the total minimum weekly wage rate for each State and Australia, as at 31st December, 1962, according to jurisdiction.

**WEEKLY WAGE RATES: ADULT MALES, COMPONENTS OF TOTAL  
WAGE RATE, 31st DECEMBER, 1962(a)**

WEIGHTED AVERAGES OF MINIMUM WEEKLY RATES(b) PAYABLE FOR A FULL WEEK'S  
WORK (EXCLUDING OVERTIME)

Jurisdiction and components of total wage(c)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Commonwealth Awards, etc.—							
Basic Wage ..	294 7	287 5	279 5	283 6	288 4	293 4	289 7
Margin ..	72 5	67 4	79 5	73 10	86 7	63 9	71 0
Loading ..	5 2	3 8	4 9	2 7	2 10	2 4	4 1
<i>Total Wage</i> ..	<i>372 2</i>	<i>358 5</i>	<i>363 7</i>	<i>359 11</i>	<i>377 9</i>	<i>359 5</i>	<i>364 8</i>
State Awards, etc.—							
Basic Wage ..	299 11	287 9	284 11	283 1	298 2	294 2	293 1
Margin ..	68 6	80 9	69 2	57 1	62 0	68 3	69 4
Loading ..	5 9	6 4	4 6	7 7	3 4	9 3	5 6
<i>Total Wage</i> ..	<i>374 2</i>	<i>374 10</i>	<i>358 7</i>	<i>347 9</i>	<i>363 6</i>	<i>371 8</i>	<i>367 11</i>
All Awards, etc.—							
Basic Wage ..	297 2	287 6	283 10	283 5	297 1	293 8	291 3
Margin ..	70 6	71 6	71 3	68 8	64 11	65 6	70 2
Loading ..	5 5	4 6	4 7	4 1	3 2	5 1	4 10
<i>Total Wage</i> ..	<i>373 1</i>	<i>363 6</i>	<i>359 8</i>	<i>356 2</i>	<i>365 2</i>	<i>364 3</i>	<i>366 3</i>

(a) Excludes rural. The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. (b) As prescribed in awards, determinations and agreements. (c) For definitions, see text above.

(b) *Australia, 1939 to 1962.* The components of the total minimum weekly wage rate for Australia, according to jurisdiction, are shown in the following table.

**WEEKLY WAGE RATES: ADULT MALES, COMPONENTS OF TOTAL WAGE RATE, AUSTRALIA(a)**

**WEIGHTED AVERAGES OF MINIMUM WEEKLY RATES(b) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME)**

Jurisdiction and components of total wage(c)	31st December—					
	1939	1945	1950	1955	1960	1962
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Commonwealth Awards, etc.—						
Basic Wage .. ..	79 5	97 3	162 2	239 0	278 2	289 7
Margin .. ..	17 3	19 4	35 8	52 8	70 1	71 0
Loading .. ..	0 4	4 1	3 11	2 4	3 2	4 1
<i>Total Wage</i> .. ..	<i>97 0</i>	<i>120 8</i>	<i>201 9</i>	<i>294 0</i>	<i>351 5</i>	<i>364 8</i>
State Awards, etc.—						
Basic Wage .. ..	81 11	98 1	161 8	244 8	285 2	293 1
Margin .. ..	17 4	20 0	35 3	50 6	68 5	69 4
Loading .. ..	0 6	2 5	5 5	5 0	5 3	5 6
<i>Total Wage</i> .. ..	<i>99 9</i>	<i>120 6</i>	<i>202 4</i>	<i>300 2</i>	<i>358 10</i>	<i>367 11</i>
All Awards, etc.—						
Basic Wage .. ..	80 8	97 8	161 11	241 10	281 7	291 3
Margin .. ..	17 3	19 8	35 6	51 7	69 3	70 2
Loading .. ..	0 5	3 3	4 7	3 7	4 2	4 10
<i>Total Wage</i> .. ..	<i>98 4</i>	<i>120 7</i>	<i>202 0</i>	<i>297 0</i>	<i>355 0</i>	<i>366 3</i>

For footnotes, see p. 470.

(iv) *Adult Females—States.* The following table shows, for each State and Australia, the weighted average minimum weekly rates of wage payable to adult female workers for a full week's work, and index numbers at the dates specified. This series has not been compiled for years prior to 1951.

**WEEKLY WAGE RATES: ADULT FEMALES**

**WEIGHTED AVERAGE MINIMUM WEEKLY RATES(a) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES**

Date	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
RATES OF WAGE(b)							
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1951 ..	172 4	172 2	161 2	170 3	162 6	165 7	170 4
" " 1953 ..	200 6	201 4	188 2	199 1	190 2	197 2	198 9
" " 1955 ..	209 8	210 5	194 3	201 9	197 9	200 0	206 11
" " 1960 ..	261 3	246 7	239 4	242 11	251 2	238 10	251 8
" " 1962 ..	269 1	256 8	255 8	252 4	260 11	248 3	261 5

**INDEX NUMBERS**

(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100)

31st December, 1951 ..	86.6	86.5	81.0	85.5	81.6	83.2	85.6
" " 1953 ..	100.7	101.1	94.5	100.0	95.5	99.0	99.8
" " 1955 ..	105.3	105.7	97.6	101.3	99.3	100.5	103.9
" " 1960 ..	131.2	123.9	120.2	122.0	126.2	120.0	126.4
" " 1962 ..	135.2	128.9	128.4	126.7	131.1	124.7	131.3

(a) As prescribed in awards, determinations and agreements. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

(v) *Adult Females—Industrial Groups.* The following table shows for Australia weighted average minimum weekly rates of wage and index numbers in each of the industrial groups in which the number of females employed is important, and the weighted average for all groups combined, at the dates specified.

### WEEKLY WAGE RATES: ADULT FEMALES, INDUSTRIAL GROUPS, AUSTRALIA

WEIGHTED AVERAGE MINIMUM WEEKLY RATES<sup>(a)</sup> PAYABLE FOR A FULL WEEK'S WORK  
(EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

Industrial group	At 31st December—				
	1951	1953	1955	1960	1962

#### RATES OF WAGE<sup>(b)</sup>

	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>
Manufacturing—										
Engineering, metals, vehicles, etc. ..	170	11	200	7	206	6	249	9	258	4
Textiles, clothing and footwear ..	171	2	198	9	200	11	240	8	249	6
Food, drink and tobacco ..	165	9	194	6	206	10	246	4	255	10
Other manufacturing ..	168	9	197	7	203	7	248	0	257	7
All Manufacturing Groups ..	169	11	198	3	203	4	244	7	253	8
Transport and communication ..	177	6	206	5	213	10	260	2	270	0
Wholesale and retail trade ..	171	1	199	7	213	0	263	7	274	0
Public authority (n.e.i.) and community and business services ..	170	1	199	1	209	8	257	9	267	0
Amusement, hotels, personal service, etc. ..	166	9	194	10	201	8	245	0	254	6
All Industrial Groups ..	170	4	198	9	206	11	251	8	261	5

#### INDEX NUMBERS

(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100)

Manufacturing—					
Engineering, metals, vehicles, etc. ..	85.9	100.8	103.7	125.5	129.8
Textiles, clothing and footwear ..	86.0	99.8	100.9	120.9	125.3
Food, drink and tobacco ..	83.3	97.7	103.9	123.7	128.5
Other manufacturing ..	84.8	99.2	102.3	124.6	129.4
All Manufacturing Groups ..	85.4	99.6	102.1	122.9	127.4
Transport and communication ..	89.2	103.7	107.4	130.7	135.6
Wholesale and retail trade ..	85.9	100.3	107.0	132.4	137.6
Public authority (n.e.i.) and community and business services ..	85.4	100.0	105.3	129.5	134.1
Amusement, hotels, personal service, etc. ..	83.8	97.9	101.3	123.1	127.8
All Industrial Groups ..	85.6	99.8	103.9	126.4	131.3

(a) As prescribed in awards, determinations and agreements. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

3. *Standard Hours of Work.*—(i) *General.* In the fixation of weekly wage rates, most industrial tribunals prescribe the number of hours constituting a full week's work for the wage rates specified. The hours of work so prescribed form the basis of the compilation of the weighted averages and index numbers on pages 474–5. The main features of the reduction of hours to 44 and later to 40 per week are summarized below. In considering such changes, it must be remembered that even within individual States the authority to alter conditions of work is divided between Commonwealth and State industrial tribunals and the various legislatures, and that the State legislation usually does not apply to employees covered by awards of the Commonwealth Conciliation and Arbitration Commission. However, it may do so in respect of matters not treated in Commonwealth awards.

(ii) *The 44-hour Week.* No permanent reduction to a 44-hour week was effected until 1925, although temporary reductions had been achieved earlier. In 1920, the New South Wales legislature granted a 44-hour week to most industries, but in the following year this provision was withdrawn. Also in 1920, the President of the Commonwealth Court of Conciliation and Arbitration (Higgins J.), after inquiry, granted a 44-hour week to the Timber Workers' Union, and in the following year extended the same privilege to the Amalgamated Society of Engineers. In 1921, however, a reconstituted Commonwealth Court of Conciliation and Arbitration unanimously rejected applications by five trade unions for the shorter standard week and reintroduced the 48-hour week in the case of the above-mentioned two unions then working 44 hours. During 1924, the Queensland Parliament passed legislation to operate from 1st July, 1925, granting the 44-hour standard week to employees whose conditions of work were regulated by awards and agreements of the Queensland State industrial authority. Similar legislative action in New South Wales led to the re-introduction of the 44-hour week in that State as from 4th January, 1926.

In 1927, after an exhaustive inquiry, the Commonwealth Court of Conciliation and Arbitration granted a 44-hour week to the Amalgamated Engineering Union and intimated that this reduction in standard hours of work would be extended to industries operating under conditions similar to those in the engineering industry. Applications for the shorter hours by other unions were, however, treated individually, the nature of the industry, the problem of production, the financial status and the amount of foreign competition being fully investigated. The economic depression delayed the extension of the standard 44-hour week until the subsequent improvement in economic conditions made possible its general extension to employees under Commonwealth awards.

In States other than New South Wales and Queensland, no legislation was passed to reduce the standard hours of work, so that, for employees not covered by Commonwealth awards, the change had to be effected by decisions of the appropriate industrial tribunals. In these cases, the date on which the reduction to 44 hours was implemented depended on the decision of the tribunals in particular industries, employees in some industries receiving the benefit of the reduced hours years ahead of those in others. In these States, the change to the shorter week extended over the years from 1926 to 1941.

(iii) *The 40-hour Week.* (a) *Standard Hours Inquiry, 1947.* Soon after the end of the 1939-45 War, applications were made to the Commonwealth Court of Conciliation and Arbitration for the introduction of a 40-hour week, and the hearing by the Court commenced in October, 1945. Before the Court gave its decision, the New South Wales Parliament passed legislation granting a 40-hour week, operative from 1st July, 1947, to industries and trades regulated by State awards and agreements, and in Queensland similar legislation was introduced in Parliament providing for the 40-hour week to operate from 1st January, 1948.

The Commonwealth Court of Conciliation and Arbitration, in its judgment on 8th September, 1947, granted the reduction to the 40-hour week from the beginning of the first pay-period commencing in January, 1948. The Queensland Act was passed, and was proclaimed on 10th October, 1947. On 27th October, 1947, the South Australian Industrial Court, after hearing applications by unions, approved the incorporation of the 40-hour standard week in awards of that State. The Court of Arbitration of Western Australia on 6th November, 1947, approved that, on application, provision for a 40-hour week could be incorporated in awards of the Court, commencing from 1st January, 1948.

In Victoria and Tasmania, the Wages Boards met and also incorporated the shorter working week in their determinations, so that from the beginning of 1948 practically all employees in Australia whose conditions of labour were regulated by industrial authorities had the advantages of a standard working week of 40 hours or, in certain cases, less.

(b) *Basic Wage and Standard Hours Inquiry, 1952-53.* In the 1952-53 Basic Wage and Standard Hours Inquiry, the employers sought an increase in the standard hours of work per week, claiming that one of the chief causes of the high costs and inflation had been the loss of production due to the introduction of the 40-hour week. This claim was rejected by the Court, as it considered that the employers had not proved that the existing economic situation called for a reduction of general standards in the matter of the ordinary working week. (*See also* § 5, para. 2 (iii) p. 488.)

(c) *Basic Wage and Standard Hours Inquiry, 1961.* In this case, the employers sought an increase in the number of ordinary working hours from 40 to 42 per week, with a concomitant increase in weekly wages by an amount equal to two hours' pay at ordinary rates. This was to be a temporary measure to have effect for four years, after which time hours would revert to forty and the increased wage would remain. The employers submitted that such a measure was called for by the balance of payments crisis, that it would lead to increased productivity at stable prices, and that work in excess of forty hours would be more evenly distributed with consequent financial relief for men not getting overtime work. The Commonwealth Conciliation and Arbitration Commission, which heard the application, was not persuaded that the anticipated consequences would follow, and the claim was rejected. (See also § 5, para. 2 (x) p. 493.)

4. **Hourly Wage Rates.**—(i) *General.* The average rates of wage in the preceding tables are based on the minimum rates prescribed for selected occupations in awards, etc., for a full week's work, excluding overtime. However, the number of hours constituting a full week's work differs in some instances between various occupations in each State, and between the same occupations in the several States. For some purposes, a better comparison may be obtained by reducing the results in the preceding paragraphs to a common basis, namely, the rate of wage per hour. The particulars of weighted average minimum hourly rates of wage given in the following tables relate to all industrial groups except Rural, and Shipping and Stevedoring. The Rural industry is not included in the index and Shipping and Stevedoring has been excluded because, for some of the occupations in this group, definite particulars for the computation of average working hours and hourly rates of wage are not available.

(ii) *Adult Males—States.* The following table shows the weighted average minimum hourly rates of wage payable to adult male workers, and index numbers of hourly rates in each State.

#### HOURLY WAGE RATES(a): ADULT MALES

##### WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES

Date	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
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##### RATES OF WAGE(b) (Pence)

31st December, 1945..	33.64	33.05	32.63	31.72	32.83	31.71	33.05
" " 1950..	61.96	60.58	58.60	59.44	60.35	59.42	60.70
" " 1955..	91.89	88.87	85.22	85.68	90.50	88.45	89.36
" " 1960..	109.09	105.08	105.35	102.73	107.87	105.70	106.71
" " 1962..	112.19	109.16	108.00	106.96	109.95	109.56	110.06

##### INDEX NUMBERS

(Base: Weighted Average Hourly Wage Rate for Australia, 1954 = 100)

31st December, 1945..	39.6	38.9	38.4	37.4	38.7	37.3	38.9
" " 1950..	73.0	71.4	69.0	70.0	71.1	70.0	71.5
" " 1955..	108.2	104.7	100.4	100.9	106.6	104.2	105.3
" " 1960..	128.5	123.8	124.1	121.0	127.1	124.5	125.7
" " 1962..	132.1	128.6	127.2	126.0	129.5	129.0	129.6

(a) Weighted average hourly rates of wage for all industrial groups except rural, and shipping and stevedoring. See para. 4 (i) above. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

(iii) *Adult Females—States.* The following table shows the weighted average minimum hourly rates of wage payable to adult female workers, and index numbers of hourly rates in each State.

### HOURLY WAGE RATES: ADULT FEMALES

#### WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES

Date	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
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#### RATES OF WAGE(a)

(Pence)

31st December, 1951..	52.30	51.90	48.72	51.37	49.02	50.23	51.51
" " 1953..	60.87	60.69	56.88	60.07	57.37	59.81	60.12
" " 1955..	63.65	63.43	58.72	60.88	59.65	60.67	62.59
" " 1960..	79.31	74.33	72.34	73.30	75.77	72.45	76.13
" " 1962..	81.68	77.37	77.28	76.14	78.71	75.30	79.08

#### INDEX NUMBERS

(Base: Weighted Average Hourly Wage Rate for Australia, 1954 = 100)

31st December, 1951..	86.9	86.2	80.9	85.3	81.4	83.4	85.6
" " 1953..	101.1	100.8	94.5	99.8	95.3	99.3	99.9
" " 1955..	105.7	105.3	97.5	101.1	99.1	100.8	104.0
" " 1960..	131.7	123.5	120.1	121.7	125.8	120.3	126.4
" " 1962..	135.7	128.5	128.4	126.5	130.7	125.1	131.3

(a) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

5. *Weighted Average Standard Weekly Hours of Work.*—The 40-hour week has operated in Australia generally from 1st January, 1948, and in New South Wales from 1st July, 1947 (*see* para. 3 (iii), p. 473). However, as stated in para. 4 (i) on page 474, the number of hours constituting a full week's work (excluding overtime) differs between occupations and/or between States. The weighted average standard hours of work (excluding overtime) prescribed in awards, determinations and agreements for a full working week, in respect of adult male workers in all industrial groups except Rural, and Shipping and Stevedoring, at 31st December, 1962, were:—New South Wales, 39.95; Victoria, 39.97; Queensland, 39.98; South Australia, 39.96; Western Australia, 39.89; Tasmania, 39.97; Australia, 39.96. Corresponding figures for adult female workers at 31st December, 1962, were:—New South Wales, 39.53; Victoria, 39.81; Queensland, 39.70; South Australia, 39.77; Western Australia, 39.78; Tasmania, 39.56; Australia, 39.67.

## § 3. Average Weekly Earnings

1. **Average Weekly Total Wages and Salaries Paid and Average Earnings, All Industries.**—The following figures are derived from employment and wages recorded on Pay-roll Tax returns, from other direct collections and from estimates of the unrecorded balance. Pay of members of the Defence Forces is not included. The figures are subject to revision. Corresponding figures for each quarter were published in the *Monthly Bulletin of Employment Statistics* until the August, 1962, issue and since then have been published in a monthly bulletin entitled *Wage Rates and Earnings*. Figures are also published in the *Monthly Review of Business Statistics*.

**AVERAGE WEEKLY TOTAL WAGES AND SALARIES PAID AND AVERAGE EARNINGS(a)**

Year	N.S.W. (b)	Vic.	Qld	S.A. (c)	W.A.	Tas.	Aust.
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**AVERAGE WEEKLY TOTAL WAGES AND SALARIES PAID**  
(£'000)

1957-58	..	..	21,664	15,510	6,585	4,635	3,284	1,671	53,349
1958-59	..	..	22,414	16,240	6,970	4,823	3,347	1,725	55,519
1959-60	..	..	24,816	18,123	7,441	5,392	3,618	1,878	61,268
1960-61	..	..	26,823	19,204	7,819	5,661	3,886	2,057	65,362
1961-62	..	..	27,355	19,552	7,940	5,844	4,044	2,040	66,755

**AVERAGE WEEKLY EARNINGS PER EMPLOYED MALE UNIT(d)**  
(£)

1957-58	..	..	20.44	20.22	17.94	18.68	18.05	18.95	19.67
1958-59	..	..	21.04	20.69	18.63	19.10	18.19	19.33	20.19
1959-60	..	..	22.77	22.28	19.89	20.61	19.46	20.71	21.76
1960-61	..	..	24.03	23.32	21.00	21.33	20.57	21.42	22.86
1961-62	..	..	24.51	23.96	21.79	21.96	21.27	22.43	23.48

(a) Includes, in addition to wages at award rates, earnings of salaried employees, overtime earnings, over-award and bonus payments, etc. (b) Includes Australian Capital Territory. (c) Includes Northern Territory. (d) Total wages and salaries, etc., divided by total civilian employment expressed in male units. Male units represent total male employment plus a proportion of female employment based on the approximate ratio of female to male earnings. As it is not possible to estimate the ratio of female to male earnings in the several States, the same ratio has been used for each State. Because the actual ratio may vary between States, precise comparisons between average earnings in different States cannot be made on the basis of the figures above.

2. **Average Weekly Earnings Index Numbers.**—The following table shows, for "All Industries" and for "Manufacturing", the movement in average weekly earnings from 1948-49 to the March quarter, 1963. The "All Industries" index is based on Pay-roll Tax returns and other data. The index for manufacturing industries for the years 1948-49 to 1961-62 is based on the average earnings of male wage and salary earners employed in factories as disclosed by annual factory censuses (see Chapter VI. Manufacturing Industry, § 8, para. 2 (iii), p. 206); figures for quarters subsequent to June quarter, 1962, are preliminary estimates based on Pay-roll Tax returns.

The index numbers for "All Industries" and "Manufacturing" show the movement in average earnings for each group over a period of time. However, they do not give, at any point of time, a comparison of actual earnings in the two groups. The base of each series is the year 1953-54 = 100, and both series have been seasonally adjusted.

**AVERAGE WEEKLY WAGE EARNINGS(a) INDEX NUMBERS: AUSTRALIA**  
**SEASONALLY ADJUSTED**  
*(Base of each Series: 1953-54 = 100)*

Year	All industries(b)	Manufacturing	Quarter	All industries(b)	Manufacturing
1948-49..	53.9	54.3	1960-61—September	138.2	140.2
1949-50..	59.3	60.0	December	141.3	141.7
1950-51..	71.1	72.0	March	141.3	142.4
1951-52..	87.1	88.4	June	141.1	140.2
1952-53..	95.2	95.4			
			1961-62—September	141.8	140.9
1953-54..	100.0	100.0	December	144.7	142.8
1954-55..	105.4	106.9	March	145.4	144.4
1955-56..	112.2	113.8	June	147.0	145.4
1956-57..	118.2	118.3			
1957-58..	121.3	122.0	1962-63—September	146.2	145.7
			December	147.3	145.6
1958-59..	124.5	125.6	March	149.6	148.6
1959-60..	133.6	135.4			
1960-61..	140.5	141.1			
1961-62..	144.7	143.4			

(a) See note (a) to table on previous page. (b) Average earnings per male unit employed. Male units represent total male employment plus a proportion of female employment based on the approximate ratio of female to male earnings.

#### § 4. Surveys of Wage Rates, Earnings and Hours

1. **General.**—Towards the end of 1960, a statistical survey of the wage structure of Australia was undertaken by this Bureau. The object of the survey was to obtain information as to marginal rates of wage and actual weekly earnings of adult male employees (excluding part-time and casual employees) for the last pay-period in September, 1960. A survey as at the last pay-period in October, 1961, provided similar information as to actual weekly earnings. A survey of weekly earnings and hours, carried out in respect of the last pay-period in October, 1962, provided information about the hours of work and average earnings of male and female employees in private industry.

The surveys were based on returns from stratified random samples of private employers subject to Pay-roll Tax. They did not include government or semi-government employment. Because of insufficient data, employees in rural industry and private domestic service were excluded, as also were employees of religious, benevolent and other similar bodies exempt from Pay-roll Tax. In addition, the 1960 survey excluded the shipping and stevedoring industry, the motion picture industry, certain businesses such as those of accountants and consultant engineers, and trade associations, etc.

A brief summary of the results of the 1960 and 1961 surveys is given in paras. 2 and 3 below. Only the proportions of the total employees in the various groups are shown in this issue, but more detailed particulars, including the number of employees in each group, may be found in Official Year Book No. 48, 1962, pages 410-418. The results of the 1962 survey are shown in para. 4.

2. **Survey of Wage Rates and Earnings, September, 1960.**—The sample for this survey was designed to provide accurate particulars only for Australia as a whole; hence no State details are shown in the tables below. The survey covered more than 1,100,000 adult male employees.

Definitions relevant to the survey are as follows.

- (a) *Adult Male Employees* refers to employees on the pay-roll of the last pay-day in September, 1960, and includes those who, although under 21 years of age, were paid at the adult rate prescribed in the appropriate award. Part-time and casual employees and those absent in the defence forces were excluded.
- (b) The term *awards*, as used herein, denotes awards or determinations of, or agreements registered with, Commonwealth or State industrial tribunals. Employees whose rates of pay and working conditions were not regulated by awards, and employees covered by formal, though unregistered, agreements between employee organizations and employers, are shown as "not covered by awards".



- (c) *Margins* are minimum amounts, in addition to the basic wage, awarded to particular classifications of employees for features attaching to their work, such as skill, experience, arduousness or other like factors. For the purposes of this survey the following were not included in margins:—special allowances prescribed in awards, such as shift, dirt, and height money, leading hand allowances, etc.; and other payments such as commission, payments above the minimum rate for contract and piece work, etc. (see sub-para. (e) and (g) below and also § 6. Wage Margins). In the case of contract work, etc., the margin was determined by the minimum amount prescribed in the award for the class of work performed. Where the marginal rate of wage for an occupation was not specified in an award, the margin was assumed to be the difference between the total minimum prescribed rate of wage for the occupation and the appropriate Commonwealth or State basic wage. For employees not covered by awards, and whose margins were not specified in unregistered agreements, the margin was assumed to be the difference between the appropriate basic wage in the State jurisdiction and the agreed rate of pay for a standard working week (or the weekly equivalent of the agreed rate).
- (d) *Total Weekly Earnings* include ordinary time earnings at award rates (and, for employees not covered by awards, payments at agreed rates for a standard working week), overtime earnings and all other payments. Annual or other periodical bonuses were included only at the appropriate proportion for one week. For employees paid other than weekly, only the proportion of earnings equivalent to one week was included.
- (e) *Ordinary Time Earnings at Award Rates* represent the total weekly payment to adult male employees (excluding part-time and casual employees) for hours of work paid for up to the standard or award hours, calculated at award rates of pay. They include payments for sick leave, proportion of annual leave, special allowances prescribed in awards, etc. (see sub-para. (c) above). For employees not covered by awards, they include payments at agreed rates for a standard working week.
- (f) *Overtime Earnings* represent the total weekly payment to adult male employees (excluding part-time and casual employees) for time worked in excess of award or agreed hours.
- (g) *Other Earnings* include all payments other than those in sub-para. (e) and (f) above, such as commission, payments above the minimum rate for contract work, incentive scheme, piece-work, and profit-sharing scheme payments, proportion of annual or other periodical bonuses, points system payments, attendance or good time-keeping bonuses, etc. (see sub-para. (c) above).

(i) *Marginal Rates of Wage. (a) Industrial Groups.* In the following table, adult male employees in each of the main industrial groups are classified according to weekly margin above the basic wage.

**ADULT MALE EMPLOYEES (EXCLUDING PART-TIME AND CASUAL EMPLOYEES) CLASSIFIED ACCORDING TO MARGINAL RATES OF WAGE: INDUSTRIAL GROUPS, AUSTRALIA, SEPTEMBER, 1960 (a)**

PROPORTION OF TOTAL (PER CENT.)

Weekly margin(b)	Manufacturing			Building and construction (c)	Wholesale and retail trade	Other Industries	Total
	Engineering, metals, vehicles, etc.	Other manufacturing	Total manufacturing				
Amount above basic wage—							
Less than 20s. (incl. nil) ..	2.1	2.5	2.4	1.2	1.6	3.5	2.3
20s. and less than 30s. ..	11.3	6.1	8.4	5.6	2.1	5.7	6.6
30s. " " " 40s. ..	9.1	7.4	8.2	3.5	2.6	3.7	6.0
40s. " " " 60s. ..	14.3	19.7	17.2	8.6	14.6	11.2	15.2
60s. " " " 80s. ..	13.0	15.6	14.4	15.0	22.4	12.4	15.7
80s. " " " 100s. ..	22.7	14.8	18.4	14.4	14.2	16.3	17.0
100s. " " " 120s. ..	9.3	8.5	8.9	13.0	10.6	10.3	9.7
120s. and over ..	18.2	25.4	22.1	38.7	31.9	36.9	27.5
<b>Total</b> ..	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) See page 477 for particulars of the coverage of the survey. (b) For definitions, see text above.  
(c) For some employees, allowances for sick leave, public holidays, etc. have been included in the marginal rates shown.

(b) *Jurisdiction.* In the following table, adult male employees are classified according to weekly margin above the basic wage, separate particulars being shown for employees under Commonwealth or State jurisdiction and for those not covered by awards.

**ADULT MALE EMPLOYEES (EXCLUDING PART-TIME AND CASUAL EMPLOYEES) CLASSIFIED ACCORDING TO MARGINAL RATES OF WAGE: JURISDICTION, AUSTRALIA, SEPTEMBER, 1960(a)**

PROPORTION OF TOTAL (PER CENT.)

Weekly margin(b)	Under Commonwealth awards	Under State awards	Not covered by awards	Total
Amount above basic wage—				
Less than 20s. (incl. nil) ..	2.7	2.4	1.0	2.3
20s. and less than 30s. ..	9.3	6.2	0.5	6.6
30s. " " " 40s. ..	7.2	6.9	0.8	6.0
40s. " " " 60s. ..	16.2	19.2	1.6	15.2
60s. " " " 80s. ..	15.9	20.4	2.5	15.7
80s. " " " 100s. ..	24.4	15.1	2.6	17.0
100s. " " " 120s. ..	10.6	11.4	3.2	9.7
120s. and over ..	13.7	18.4	87.8	27.5
<b>Total .. ..</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) See p. 477 for particulars of the coverage of the survey.

(b) For definitions, see pp. 477-8.

(ii) *Total Weekly Earnings.* (a) *Ordinary Time, Overtime and Other Earnings.* In the following table, the total wages and salaries paid to adult male employees in each of the main industrial groups are given for ordinary time earnings at award rates, overtime earnings and all other earnings.

**TOTAL WAGES AND SALARIES PAID TO ADULT MALE EMPLOYEES (EXCLUDING PART-TIME AND CASUAL EMPLOYEES) DURING LAST PAY-WEEK IN SEPTEMBER, 1960: INDUSTRIAL GROUPS, AUSTRALIA(a)**

Industrial group	Ordinary time earnings at award rates(b)	Overtime earnings(b)	Other earnings(b)	Total
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AMOUNTS  
(£'000)

Manufacturing—				
Engineering, metals, vehicles, etc. ..	5,469	1,012	724	7,205
Other manufacturing ..	6,961	849	700	8,510
<i>All Manufacturing Groups ..</i>	<i>12,430</i>	<i>1,861</i>	<i>1,424</i>	<i>15,715</i>
Building and construction ..	r 1,672	r 263	r 169	r 2,104
Wholesale and retail trade ..	4,521	238	425	5,184
Other industries ..	r 3,837	r 380	r 475	r 4,692
<b>All Industrial Groups ..</b>	<b>22,460</b>	<b>2,742</b>	<b>2,493</b>	<b>27,695</b>

PROPORTIONS OF TOTAL (PER CENT.)

Manufacturing—				
Engineering, metals, vehicles, etc. ..	75.9	14.0	10.1	100.0
Other manufacturing ..	81.8	10.0	8.2	100.0
<i>All Manufacturing Groups ..</i>	<i>79.1</i>	<i>11.8</i>	<i>9.1</i>	<i>100.0</i>
Building and construction ..	r 79.5	r 12.5	r 8.0	100.0
Wholesale and retail trade ..	87.2	4.6	8.2	100.0
Other industries ..	r 81.8	r 8.1	r 10.1	100.0
<b>All Industrial Groups ..</b>	<b>81.1</b>	<b>9.9</b>	<b>9.0</b>	<b>100.0</b>

(a) See p. 477 for particulars of the coverage of the survey.

(b) For definitions, see pp. 477-8.

(b) *Industrial Groups.* The proportion of adult male employees in each earnings group is shown for the main industrial groups in the following table.

**ADULT MALE EMPLOYEES (EXCLUDING PART-TIME AND CASUAL EMPLOYEES) CLASSIFIED ACCORDING TO TOTAL WEEKLY EARNINGS: INDUSTRIAL GROUPS, AUSTRALIA, SEPTEMBER, 1960(a)**

PROPORTION OF TOTAL (PER CENT.)

Total weekly earnings(b)	Manufacturing			Building and construction	Wholesale and retail trade	Other industries	Total.
	Engineering, metals, vehicles, etc.	Other manufacturing	Total manufacturing				
Less than £14(c) .. ..	2.3	2.1	2.2	2.2	0.8	1.1	1.7
£14 and less than £16 ..	3.1	4.8	4.0	1.7	2.0	2.9	3.3
£16 " " " £18 ..	8.3	12.9	10.8	6.5	17.4	9.2	11.5
£18 " " " £20 ..	11.6	15.9	13.9	11.1	19.7	12.3	14.6
£20 " " " £22 ..	13.2	13.8	13.5	13.6	14.9	11.6	13.5
£22 " " " £24 ..	12.6	11.1	11.8	17.7	10.7	10.5	11.8
£24 " " " £26 ..	10.4	9.9	10.2	9.8	8.0	10.0	9.7
£26 " " " £30 ..	16.5	11.8	13.9	14.2	11.0	14.9	13.5
£30 " " " £35 ..	11.9	8.3	10.0	12.0	6.7	12.4	9.9
£35 and over .. ..	10.1	9.4	9.7	11.2	8.8	15.1	10.5
<b>Total .. ..</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) See p. 477 for particulars of the coverage of the survey. (b) For definitions, see pp. 477-8.  
(c) Inquiry indicated that many of the adult males in this group were absent for part of the week.

3. *Survey of Weekly Earnings, October, 1961.*—For this survey the sample was designed so that particulars of the distribution of earnings in each State could be obtained as well as those for Australia (see below), but it was not possible, without a considerable increase in the number of returns, to obtain particulars for each industry group in each State. State details were therefore restricted to the two major groups, manufacturing and non-manufacturing; those for Australia were obtained for eight separate industry groups. Because of limitations of space, it has not been possible to include all figures in the tables herein. For further details, reference should be made to Statistical Bulletin No. 22—*Survey of Weekly Earnings, October, 1961*, 14th February, 1962.

The businesses selected in the sample were allocated by States and by industry and size groups in such a way that the precision of the sample estimates for total manufacturing and total non-manufacturing, expressed as percentages of the estimates themselves, would be approximately the same in each State.

Definitions relevant to the survey are as follows.

*Adult Male Employees* refers to employees on the pay-roll of the last pay-period in October, 1961, and includes those who, although under 21 years of age, were paid at the adult rate prescribed for their particular occupation. Part-time and casual employees and those absent in the defence forces were excluded. Executive clerical and sales staff were included, as were employees working short time who would normally have been full-time employees.

*Total Weekly Earnings* (i.e. gross earnings before taxation and other deductions) include ordinary time earnings, overtime earnings and all other payments, such as holiday and sick pay, commission, payments above the minimum rate for contract work, incentive scheme, piece-work and profit-sharing scheme payments, points system payments, attendance bonuses, etc. Annual or other periodical bonuses have been included only at the appropriate proportion for one week. For employees paid other than weekly, only the proportion of earnings equivalent to one week has been included.

(i) *States.* (a) *All Industries.* The following table shows the proportions of adult male employees in each earnings group in each State.

**ADULT MALE EMPLOYEES (EXCLUDING PART-TIME AND CASUAL EMPLOYEES) CLASSIFIED ACCORDING TO TOTAL WEEKLY EARNINGS, OCTOBER, 1961(a)**

**PROPORTIONS OF TOTAL (PER CENT.)**

Total weekly earnings(b)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Less than £14(c) .. ..	1.1	0.9	0.8	0.8	0.3	1.2	0.9
£14 and less than £16 ..	1.0	1.7	3.6	2.1	2.9	2.1	1.7
£16 " " " £18 ..	6.6	9.1	15.3	11.2	13.9	11.7	9.3
£18 " " " £20 ..	13.3	14.5	20.0	17.6	18.7	16.1	15.2
£20 " " " £22 ..	13.4	14.9	15.3	17.0	16.1	15.1	14.6
£22 " " " £24 ..	12.5	13.4	9.3	12.6	11.4	13.1	12.4
£24 " " " £26 ..	11.7	10.8	8.2	9.6	8.6	10.5	10.6
£26 " " " £30 ..	15.2	12.7	10.3	12.2	11.2	12.0	13.3
£30 " " " £35 ..	11.4	9.9	8.1	8.9	7.6	8.9	10.1
£35 and over .. ..	13.8	12.1	9.1	8.0	9.3	9.3	11.9
<b>Total .. ..</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) See p. 480 for particulars of the coverage of the survey.

(b) For definitions, see p. 480.

(c) Inquiry indicated that the majority of the adult males in this group did not work a full week because of absenteeism, changing jobs, etc. Others were working short time.

(b) *Manufacturing and Non-manufacturing.* The proportion of adult male employees in each earnings group is shown for manufacturing and non-manufacturing industries in the following table.

**ADULT MALE EMPLOYEES (EXCLUDING PART-TIME AND CASUAL EMPLOYEES) CLASSIFIED ACCORDING TO TOTAL WEEKLY EARNINGS: MANUFACTURING AND NON-MANUFACTURING INDUSTRIES, OCTOBER, 1961(a)**

**PROPORTIONS OF TOTAL (PER CENT.)**

Total weekly earnings(b)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
<b>MANUFACTURING</b>							
Less than £14(c) .. ..	1.2	1.0	1.3	1.1	0.4	1.5	1.1
£14 and less than £16 ..	1.2	2.1	5.3	2.2	4.2	2.0	2.1
£16 " " " £18 ..	7.8	11.0	18.3	10.6	16.8	12.3	10.5
£18 " " " £20 ..	12.6	14.6	20.6	17.5	20.2	13.8	14.8
£20 " " " £22 ..	13.9	15.5	16.8	17.2	17.6	15.5	15.2
£22 " " " £24 ..	13.7	12.8	9.2	13.1	10.5	12.6	12.8
£24 " " " £26 ..	11.5	10.6	8.0	10.0	8.2	11.4	10.6
£26 " " " £30 ..	15.5	12.5	9.4	12.3	10.0	12.8	13.4
£30 " " " £35 ..	11.0	9.6	5.8	9.0	5.9	8.9	9.6
£35 and over .. ..	11.6	10.3	5.3	7.0	6.2	9.2	9.9
<b>Total .. ..</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**NON-MANUFACTURING**

Less than £14(c) .. ..	0.9	0.6	0.4	0.5	0.3	0.8	0.7
£14 and less than £16 ..	0.7	1.0	2.2	2.0	2.0	2.3	1.2
£16 " " " £18 ..	5.0	6.2	13.0	12.1	11.9	10.8	7.7
£18 " " " £20 ..	14.3	14.5	19.6	17.7	17.7	19.2	15.8
£20 " " " £22 ..	12.8	13.9	14.2	16.8	15.0	14.5	13.9
£22 " " " £24 ..	10.8	14.2	9.3	11.8	12.0	13.8	11.8
£24 " " " £26 ..	11.8	11.1	8.5	9.1	8.8	9.4	10.6
£26 " " " £30 ..	14.7	13.1	11.0	12.0	12.1	11.0	13.2
£30 " " " £35 ..	12.1	10.5	9.8	8.7	8.8	8.8	10.7
£35 and over .. ..	16.9	14.9	12.0	9.3	11.4	9.4	14.4
<b>Total .. ..</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) See p. 480 for particulars of the coverage of the survey.

(b) For definitions, see p. 480.

(c) Inquiry indicated that the majority of the adult males in this group did not work a full week because of absenteeism, changing jobs, etc. Others were working short time.

(ii) *Australia, Industrial Groups.* The proportions of adult male employees in the main industrial groups covered by the survey are shown in the following table according to total weekly earnings.

**ADULT MALE EMPLOYEES (EXCLUDING PART-TIME AND CASUAL EMPLOYEES) CLASSIFIED ACCORDING TO TOTAL WEEKLY EARNINGS: INDUSTRIAL GROUPS, AUSTRALIA, OCTOBER, 1961(a)**

PROPORTION OF TOTAL (PER CENT.)

Total weekly earnings(b)	Manufacturing				Building and construction	Wholesale and retail trade	Other industries	Total
	Engineering, metals, vehicles, etc.	Food, drink and tobacco	Other manufacturing	Total manufacturing				
Less than £14(c)	1.3	1.3	0.9	1.1	1.5	0.4	0.6	0.9
£14 and less than £16	1.7	2.2	2.4	2.1	1.0	1.2	1.4	1.7
£16 " " " £18	8.1	11.4	12.8	10.5	3.9	9.9	6.7	9.3
£18 " " " £20	13.8	19.4	14.1	14.8	10.8	21.1	11.4	15.2
£20 " " " £22	16.3	14.4	14.3	15.2	15.7	15.3	11.4	14.6
£22 " " " £24	14.2	11.8	11.6	12.8	18.1	11.8	9.4	12.4
£24 " " " £26	11.0	10.2	10.4	10.6	16.2	9.6	9.7	10.6
£26 " " " £30	13.8	12.8	13.1	13.4	12.9	11.6	15.2	13.3
£30 " " " £35	10.0	8.6	9.6	9.6	9.0	8.1	14.5	10.1
£35 and over	9.8	7.9	10.8	9.9	10.9	11.0	19.7	11.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) See p. 480 for particulars of the coverage of the survey. (b) For definitions, see p. 480.  
(c) Inquiry indicated that the majority of the adult males in this group did not work a full week because of absenteeism, changing jobs, etc. Others were working short time.

4. *Survey of Weekly Earnings and Hours, October, 1962.*—This survey provided, for Australia, information on average weekly and hourly earnings and average weekly hours paid for, in each of the principal industrial groups. Much of this information had previously not been available in Australia. The total numbers of employees in the field represented by the sample were 1,318,000 males and 513,000 females, the coverage being as set out on page 477. Preliminary results of the survey, which were published in Statistical Bulletin 213—*Survey of Weekly Earnings and Hours, October, 1962*, 20th March, 1963, are shown in the tables following. The information for each State is not available in the same industry detail as is that for Australia, but tables have been included to show particulars for the two broad groups of industry, manufacturing and non-manufacturing. Further particulars will be found in the Appendix.

Definitions relevant to the survey are as follows.

*Employees* refers to male and female employees on the pay-roll of the last pay-period in October, 1962.

*Employees whose Hours of Work were known* exclude (i) all managerial, executive, professional and higher supervisory staff, irrespective of whether or not their hours of work were known, and (ii) any other employees whose hours of work were not known.

They comprise all other employees who received pay for the last pay-period in October, 1962 and whose hours of work were known (including foremen, transport, supervisors, floor-walkers, other minor supervisory employees, clerical and office staff, etc.).

*Part-time Employees* refers to employees who ordinarily worked less than 30 hours a week. Employees on short time who normally worked 30 hours or more were classified as "other than part-time".

*Adults* include employees who, although under 21 years of age, were paid at the adult rate for their occupation.

*Juniors* are those employees under 21 years of age who were not paid at the adult rate for their occupation.

*Earnings* (i.e. gross earnings before taxation and other deductions) include ordinary time and overtime earnings, payments for sick leave and holidays, commission, and all other payments such as incentive scheme, piecework and profit-sharing scheme payments, etc., and bonus payments of any kind. Annual or other periodical bonuses have been included only at the appropriate proportion for one week. For employees paid other than weekly, only the proportion of earnings equivalent to one week has been included.

*Weekly Hours paid for* include ordinary time and overtime hours, paid stand-by or reporting time, paid sick leave and paid holidays. For employees paid other than weekly, hours have been converted to the equivalent for one week.

**ADULT EMPLOYEES (OTHER THAN PART-TIME) WHOSE HOURS OF WORK WERE KNOWN(a)(b): AVERAGE EARNINGS AND HOURS, INDUSTRIAL GROUPS, AUSTRALIA, OCTOBER, 1962(c)**

Industrial group	Average weekly earnings		Average weekly hours paid for—		Average hourly earnings	
	Adult males	Adult females	Adult males	Adult females	Adult males	Adult females
	£	£			s. d.	s. d.
Manufacturing—						
Chemicals, oils, paints .. ..	25.46	15.57	42.13	38.78	12 1	8 0
Extracting, refining and founding of metals .. ..	25.79	15.02	42.52	39.93	12 2	7 6
Engineering, metal works, etc. ..	25.00	14.89	43.52	38.82	11 6	7 8
Ships, vehicles, etc. .. ..	25.42	15.51	42.73	39.37	11 11	7 11
All engineering and metals groups	25.25	15.00	43.14	38.98	11 8	7 8
Textiles, clothing and footwear ..	23.02	14.15	41.48	39.20	11 1	7 3
Food, drink and tobacco .. ..	23.21	14.11	42.30	39.16	11 0	7 3
Paper, printing, etc. .. ..	27.59	15.24	41.96	39.71	13 2	7 8
Other manufacturing .. ..	23.46	14.34	42.48	39.53	11 1	7 3
All Manufacturing Groups .. ..	24.63	14.51	42.64	39.19	11 7	7 5
Mining and quarrying .. ..	28.63	16.91	40.90	38.74	14 0	8 9
Building and construction .. ..	26.57	15.70	42.42	38.83	12 6	8 1
Transport .. ..	25.10	15.95	40.42	39.26	12 5	8 2
Finance and property .. ..	25.96	15.94	38.93	37.65	13 4	8 6
Retail trade .. ..	22.64	15.16	41.03	39.48	11 0	7 8
Wholesale and other commerce ..	23.33	15.82	40.81	39.22	11 5	8 1
Other industries .. ..	23.98	15.38	41.13	38.82	11 8	7 11
All Industrial Groups .. ..	24.70	14.98	41.92	39.08	11 9	7 8

(a) Excludes managerial, executive, professional and higher supervisory staff, irrespective of whether or not their hours of work were known, and other employees whose hours of work were not known.  
 (b) Private employment. (c) Last pay-period in October, 1962. For definitions and particulars of the coverage of the survey, see pp. 482-3.

**ADULT EMPLOYEES (OTHER THAN PART-TIME) WHOSE HOURS OF WORK WERE KNOWN(a)(b): AVERAGE EARNINGS AND HOURS, OCTOBER, 1962(c)**

State	Average weekly earnings		Average weekly hours paid for		Average hourly earnings	
	Adult males	Adult females	Adult males	Adult females	Adult males	Adult females
	£	£			s. d.	s. d.
<b>MANUFACTURING</b>						
New South Wales .. .. .	25.27	14.81	42.43	39.03	11 11	7 7
Victoria .. .. .	24.96	14.33	43.19	39.19	11 7	7 4
Queensland .. .. .	22.54	13.70	42.60	39.77	10 7	6 11
South Australia .. .. .	23.82	14.42	42.77	39.70	11 2	7 3
Western Australia .. .. .	22.69	13.66	42.00	39.50	10 10	6 11
Tasmania .. .. .	23.81	14.64	40.55	40.01	11 9	7 4
Australia .. .. .	24.63	14.51	42.64	39.19	11 7	7 5
<b>NON-MANUFACTURING</b>						
New South Wales .. .. .	25.72	16.13	41.18	38.72	12 6	8 4
Victoria .. .. .	24.87	15.76	41.07	38.93	12 1	8 1
Queensland .. .. .	23.49	14.53	40.63	39.45	11 7	7 4
South Australia .. .. .	22.84	14.19	40.65	39.17	11 3	7 3
Western Australia .. .. .	24.64	14.51	40.85	39.36	12 1	7 4
Tasmania .. .. .	23.47	14.06	39.22	39.11	12 0	7 2
Australia .. .. .	24.79	15.53	40.94	38.95	12 1	8 0
<b>ALL INDUSTRIAL GROUPS</b>						
New South Wales .. .. .	25.45	15.41	41.92	38.89	12 2	7 11
Victoria .. .. .	24.92	14.83	42.38	39.10	11 9	7 7
Queensland .. .. .	23.01	14.27	41.62	39.55	11 1	7 3
South Australia .. .. .	23.43	14.29	41.91	39.39	11 2	7 3
Western Australia .. .. .	23.84	14.28	41.32	39.39	11 6	7 3
Tasmania .. .. .	23.65	14.34	39.94	39.54	11 10	7 3
Australia .. .. .	24.70	14.98	41.92	39.08	11 9	7 8

For footnotes, see table p. 483.

**ALL EMPLOYEES(a)(b): AVERAGE WEEKLY EARNINGS, INDUSTRIAL GROUPS, AUSTRALIA, OCTOBER, 1962(c)**  
(£)

Industrial group	Males	Females
<b>Manufacturing—</b>		
Chemicals, oils, paints .. .. .	27.19	14.68
Extracting, refining and founding of metals .. .. .	25.59	14.09
Engineering, metal works, etc. .. .. .	24.88	14.19
Ships, vehicles, etc. .. .. .	25.35	14.70
All Engineering and Metals Groups .. .. .	25.11	14.26
Textiles, clothing and footwear .. .. .	23.62	12.99
Food, drink and tobacco .. .. .	23.71	13.05
Paper, printing, etc. .. .. .	26.63	13.63
Other manufacturing .. .. .	23.45	13.27
All Manufacturing Groups .. .. .	24.70	13.45
Mining and quarrying .. .. .	28.99	14.65
Building and construction .. .. .	26.28	14.10
Transport .. .. .	24.66	13.88
Finance and property .. .. .	28.10	13.13
Retail trade .. .. .	21.79	11.85
Wholesale and other commerce .. .. .	24.24	13.69
Other industries .. .. .	20.63	12.96
All Industrial Groups .. .. .	24.64	13.10

(a) Comprises managerial, executive, professional and higher supervisory staff, and all other employees, including juniors and part-time employees. (b) Private employment. (c) Last pay-period in October, 1962. For definitions and particulars of the coverage of the survey, see pp. 482-3.

**ALL EMPLOYEES(a)(b): AVERAGE WEEKLY EARNINGS, STATES,  
OCTOBER, 1962(c)**  
(£)

Industrial group	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
<b>MALES</b>							
Manufacturing .. ..	25.31	25.51	21.99	23.52	21.91	23.77	24.70
Non-manufacturing .. ..	25.55	24.95	23.31	22.08	23.72	22.84	24.56
All Industrial Groups ..	25.41	25.28	22.68	22.88	23.00	23.33	24.64
<b>FEMALES</b>							
Manufacturing .. ..	13.73	13.65	11.55	12.62	11.48	13.03	13.45
Non-manufacturing .. ..	13.62	12.79	12.06	11.52	11.13	11.25	12.80
All Industrial Groups ..	13.68	13.27	11.91	11.92	11.21	11.98	13.10

For footnotes, see table p. 484.

### § 5. Basic Wages in Australia

1. **General.**—The concept of a "basic" or "living" wage is common to rates of wage determined by industrial authorities in Australia. Initially the concept was interpreted as the "minimum" or "basic" wage necessary to maintain an average employee and his family in a reasonable state of comfort. However, it is now generally accepted "that the wage should be fixed at the highest amount which the economy can sustain and that the 'dominant factor' is the capacity of the community to carry the resultant wage levels".\*

Under the *Commonwealth Conciliation and Arbitration Act* 1904–1961 (see p. 463) the Commonwealth Conciliation and Arbitration Commission (previously the Commonwealth Court of Conciliation and Arbitration) may, for the purpose of preventing or settling an industrial dispute extending beyond the limits of any State, make an order or award "altering the basic wage (that is to say, that wage or that part of the wage, which is just and reasonable for an adult male [female], without regard to any circumstance pertaining to the work upon which, or the industry in which he [she] is employed) or the principles upon which it is computed".

In the past, the Commonwealth Court of Conciliation and Arbitration held general basic wage inquiries from time to time, and its findings applied to industrial awards within its jurisdiction. Prior to the decision of the Commonwealth Court of Conciliation and Arbitration, announced on 12th September, 1953, discontinuing the automatic adjustment of basic wages in Commonwealth awards in accordance with variations occurring in retail price index numbers, the relevant basic wage of the Commonwealth Court of Conciliation and Arbitration was adopted to a considerable extent by State Industrial Tribunals. In New South Wales and South Australia, the State industrial authorities adopted the relevant Commonwealth basic wage. In Victoria and Tasmania, where Wages Boards systems operate, no provision was included in the industrial Acts for the declaration of a basic wage, although, in the past, Wages Boards generally adopted basic wages based on those of the Commonwealth Court. In Queensland and Western Australia, the determination of a basic wage is a function of the respective State Industrial or Arbitration Courts, and (subject to State law) they took into account the rates determined by the Commonwealth Court. Following the decision of the Commonwealth Court of Conciliation and Arbitration to discontinue automatic quarterly adjustments to the basic wage, the various State industrial authorities have determined State basic wages in accordance with the provisions of the respective State industrial legislation. Details of the action taken in each State and subsequent variations in State basic wages are set out in para. 5 of this section.

In addition to the basic wage, "secondary" wage payments, including margins for skill and various kinds of loadings peculiar to the occupation or industry, are determined by these authorities. The basic wage, and the "secondary" wage, where prescribed, make up the "minimum" wage for a particular occupation. The term "minimum wage" as distinct from the basic wage is used currently to express the lowest rate payable for a particular occupation or industry. (See also § 2, para. 2 (iii) *Adult Males—Components of Total Wage Rate*, pp. 469–71).

\* *Commonwealth Arbitration Reports*, Vol. 77, p. 494.



2. **The Commonwealth Basic Wage.**—(i) *Early Judgments.* The principle of a living or basic wage was propounded as far back as 1890, but it was not until 1907 that a wage, as such, was declared by a Court in Australia. The declaration was made by way of an order in terms of section 2 (d) of the *Excise Tariff* 1906 in the matter of an application by H.V. McKay that the remuneration of labour employed by him at the Sunshine Harvester Works, Victoria, was "fair and reasonable". Mr. Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration, defined the standard of a "fair and reasonable" minimum wage for unskilled labourers as that standard appropriate to "the normal needs of the average employee, regarded as a human being living in a civilized community".\* The rate declared was 7s. a day or £2 2s. a week for Melbourne, the amount considered reasonable for "a family of about five".

The "Harvester" standard was adopted by the Commonwealth Court of Conciliation and Arbitration for incorporation in its awards, and practically the same rates continued until 1913, when the Court took cognizance of retail price index numbers, covering food and groceries and rent of all houses ("A" Series) for the 30 more important towns of Australia, which had been published by the Commonwealth Statistician for the first time in the preceding year. The basic wage rates for towns were thereafter varied in accordance with the respective retail price index numbers. Court practice was to equate the retail price index number 875 for Melbourne for the year 1907 to the "Harvester" rate of 42s. a week (or the base of the index (1,000) to 48s. a week). At intervals thereafter as awards came before it for review, the Court usually revised the basic wage rate of the award in proportion to variations in the retail price index. In some country towns, certain "loadings" were added by the Court to wage rates so derived to offset the effect of lower housing standards, and consequently of house rents, on the index numbers for these towns.

Over the period of its operation, the adequacy or otherwise of the "Harvester" standard was the subject of much discussion, the author of the judgment himself urging on several occasions the need for its review. During the period of rapidly rising prices towards the end of the 1914-18 War, strong criticism developed that this system did not adequately maintain the "Harvester" equivalent. A Royal Commission was appointed in 1919 to inquire as to what it would actually cost a man, wife and three children under fourteen years of age to live in a reasonable standard of comfort, and as to how the basic wage might be automatically adjusted to maintain purchasing power. The Commission's Reports were presented in 1920 and 1921. An application by the unions to have the amounts arrived at by the inquiry declared as the basic wage was not accepted by the Court because they were considerably in advance of existing rates, and grave doubts were expressed by members of the Court as to the ability of industry to pay such rates. Further details of the recommendations of the Commission were given in *Labour Report* No. 41, page 102.

The system of making automatic quarterly adjustments to the basic wage in direct ratio to variations in the retail price index ("A" Series) was first introduced in 1921. The practice then adopted was to calculate the adjustments to the basic wage quarterly on the index number for the preceding quarter. Previously, adjustments had been made sporadically in relation to retail price indexes for the previous calendar year or the year ended with the preceding quarter. The new method would have resulted in a basic wage lower than that to which employees would have been entitled had the previous practice been continued, and in 1922† the Court added to the basic wage a general loading of 3s. (known as the "Powers 3s."), "a sum . . . which did, to the extent of 3s. per week, relieve the employees from the detrimental effect so far as they were concerned of the change which the Court was then making in its method of fixing the basic wage".‡ This loading continued until 1934. The practice adopted by the Commonwealth Court in 1921 of making automatic quarterly adjustments continued until the Court's judgment of 12th September, 1953 (see p. 488).

For a description of the several series of retail price indexes referred to in these paragraphs, see pages 445-6 of this chapter.

(ii) *Basic Wage Inquiries, 1930 to 1950.* No change was made in the method of fixation and adjustment of the basic wage until the onset of the depression in 1930, when applications were made to the Court for a reduction of wages. From 1st February, 1931, the Court reduced all wages under its jurisdiction by 10 per cent. Subsequent applications in 1932 and 1933 for cancellation of this reduction were refused. In May, 1933, the Court transferred the basis of the quarterly adjustment of the basic wage from the "A" Series to the "D" Series Retail Price Index. Further particulars may be found in the *Labour Report*, Nos. 22 and 23.

\* *Commonwealth Arbitration Reports*, Vol. 2, p. 3.

† 16 C.A.R., p. 32.

‡ *Ibid.*, p. 841.

The "Harvester" standard, adjusted by variations in retail price index numbers, continued to be the theoretical basis of the wage of the Commonwealth Court until the judgment of 17th April, 1934, when automatic adjustment was transferred to the "C" Series Retail Price Index, the base of the index being taken as equal to 81s. a week. The new rate for the six capital cities, £3 5s., was in effect the same as that previously paid under the "A" Series, without the "Powers 3s." and without the 10 per cent. reduction, which then ceased to operate. (*See Labour Report* No. 25, 1934.)

The following were the main features of the judgment of the 1937 Inquiry. (a) Amounts were added to the basic wage not as an integral, and therefore adjustable, part of that wage, but as "loadings" additional to the rates payable under the 1934 judgment (referred to as the "needs" portion of the basic wage). These loadings, commonly referred to as "Prosperity" loadings, ranged, for capital cities, from 4s. to 6s., that for the six capitals being 5s. (b) The minimum adjustment of the basic wage was fixed at 1s. a week instead of 2s. (c) The basis of the adjustment of the "needs" portion of the wage in accordance with the variations shown by retail price index numbers was transferred from the "C" Series to a special "Court" Series based upon the "C" Series. (d) Female and junior rates were left for adjustment by individual judges when dealing with specific awards. (*See Labour Report* No. 28, pages 77-87.)

In 1940, the combined unions applied to have the value of 1,000 (the base of the "C" Series Index upon which the "Court" Series was based) raised from 81s. to 100s. a week, and the "Prosperity" loadings incorporated in the new rate. In its judgment of 7th February, 1941, the Court unanimously refused to grant any increase, owing mainly to the uncertainty of the economic outlook under existing war conditions. The application was stood over for further consideration. (*See below.*) In the course of the judgment, the Chief Judge suggested that the basic wage might be graded according to family responsibilities by means of a comprehensive system of child endowment, and that if a scheme of this nature were established, future fixations of the basic wage would be greatly simplified. (The Commonwealth *Child Endowment Act* came into operation on 1st July, 1941. For details see Chapter XV. Welfare Services.)

In 1946, an application was made for restoration of the adjourned 1940 hearing (*see above*). During the protracted hearing of the Standard Hours Inquiry (*see p. 473*), it became apparent that reconsideration of the amount of the basic wage was, in the public interest, a matter of increasing urgency, and the unions therefore applied for an "interim" basic wage declaration. Judgment was delivered on 13th December, 1946, whereby an increase of 7s. a week was granted in the "needs" portion of the basic wage, the rate for the six capital cities as a whole being increased from 93s. to 100s. a week. For automatic quarterly adjustments, a new "Court" Index (Second Series) (Base 1923-27 = 87.0) was adopted. All "loadings" on the basic wage were retained. Further particulars of this judgment may be obtained from *Labour Report* No. 38, page 79.

The Basic Wage Inquiry, 1949-50, completed the case begun in 1940 and continued in 1946 (*see above*). The general hearing of the unions' claims was commenced on 17th May, 1949, and separate judgments were delivered on 12th October, 1950.\* A majority of the Court (Foster and Dunphy JJ.) was of the opinion that the basic wage for adult males should be increased by £1 a week, and that for adult females should be 75 per cent. of the adult male rate. Kelly C.J. considered that no increase in either the male or the female wage was justified. On 24th October and 17th and 23rd November, 1950, the Court made further declarations concerning the "Prosperity" and other loadings. The "Prosperity" loading of 1937 (*see above*), which was being paid at rates between 3s. and 6s. a week according to localities, was standardized at a uniform rate of 5s. a week for all localities and was declared to be an adjustable part of the basic wage, the "War" loadings were declared to be not part of the basic wage, and any other loading declared to be part of the basic wage ceased to be paid as a separate entity.

The new rates operated from the beginning of the first pay-period in December, 1950, in all cases being the rate based on the Court Index (2nd Series) for the September quarter, 1950, plus a flat-rate addition of £1, together with the standardized "Prosperity" loading of 5s. The new basic wage rate for the six capital cities (weighted average) was £8 2s., comprising £6 17s. Court (2nd Series) plus 5s. uniform "Prosperity" loading plus the £1 addition. The declaration provided that the whole of this basic wage would be subject to automatic quarterly adjustments as from the beginning of the first pay-period commencing in February, 1951, on the basis of the index numbers for the December quarter, 1950. For this purpose, the new rate of £8 2s. was equated to the "C" Series retail price index number 1,572 for the

\* *Commonwealth Arbitration Reports*, Vol. 68, p. 698.

six capital cities (weighted average) for the September quarter, 1950. From this equation was derived a new "Court" Index (Third Series) with 103.0 equated to 1,000 in the "C" Series Index. Further particulars of the judgment may be found in *Labour Report* No. 39, page 81.

For more detailed descriptions of the foregoing inquiries, reference should be made to earlier issues of the *Labour Report* and the *Official Year Book*.

(iii) *Basic Wage and Standard Hours Inquiry, 1952-53.* On 5th August, 1952, the Commonwealth Court of Conciliation and Arbitration began hearing claims by employers' organizations that (a) the basic wage for adult males be reduced; (b) the basic wage for adult females be reduced; (c) the standard hours of work be increased; (d) the system of adjusting the basic wages in accordance with variations occurring in retail price index numbers be abandoned; and by employees' organizations, that the basic wage for adult males be increased.\*

The decision of the Court, announced on 12th September, 1953, was as follows:—the employers' applications for reduction of the basic wages for adult males and females and for an increase of the standard hours of work were refused; the employers' applications for omission or deletion of clauses or sub-clauses providing for the adjustment of basic wages were granted; and the unions' applications for increases of basic wages were refused.

The Court in the course of its judgment said that nothing had been put before it during the inquiry in support of a departure from its well-established principle that the basic wage should be the highest that the capacity of the community as a whole could sustain. If the Court is at any time asked to fix a basic wage on a true needs basis, the question of whether such a method is correct in principle and all questions as to the size of the family unit remain open.

In order to remove certain misconceptions about its function, the Court stated that it was neither a social nor an economic legislature, and that its function under section 25 of the Act was to prevent or settle specific industrial disputes. However, these must be settled upon terms which seem just to the Court, having regard to conditions which exist at the time of its decision.

The Court intimated that time would be saved in future inquiries if the parties to the disputes, in discussing the principle of the "capacity to pay", directed their attention to the broader aspects of the economy, as indicated by a study of employment, investment, production and productivity, overseas trade, overseas balances, the competitive position of secondary industry, and retail trade.

In accordance with its decision, the Court, commencing on 21st October, 1953, amended all Commonwealth awards by deleting the clauses providing for the automatic adjustment of the basic wage. Subsequently, the power of the Court to vary awards not the subject of an application by one of the parties was unsuccessfully challenged in the High Court of Australia.

For further particulars of the judgment, see *Labour Report* No. 46, page 64.

(iv) *Basic Wage Inquiry, 1956.* On 14th February, 1956, the Commonwealth Court of Conciliation and Arbitration commenced hearing an application by trade unions for an increase in the basic wage to the amount it would have reached if automatic quarterly adjustments deleted in September, 1953, had remained in force, plus a further £1; for the re-introduction of automatic quarterly adjustments; and for the abolition of what was known as the 3s. country differential. This application was regarded as a general application for variation of the basic wage in all Commonwealth awards.

All the claims made by the unions were opposed by the respondent employers. The Commonwealth Government intervened in the public interest and opposed the re-introduction of automatic adjustments. The States of New South Wales, Queensland, Western Australia and Tasmania supported the unions' claims for the re-establishment of the system of automatic adjustments and the raising of the basic wage to the levels indicated by the current "C" Series Index numbers, but the State of South Australia opposed these claims. The State of Victoria neither supported nor opposed the unions' claims.

The judgment was delivered on 26th May, 1956. The Court rejected each claim made by the unions, but decided to increase the adult male basic wage by 10s. a week, payable from the beginning of the first pay-period in June. As a result of this decision, the basic wage for adult females was increased by 7s. 6d. a week with proportionate increases for juniors of both sexes and for apprentices.

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\* *Commonwealth Arbitration Reports*, Vol. 77, p. 477.

The Court took the view that its decision in 1953 to abandon the system of quarterly adjustments was clearly right and that "so long as the assessment of the basic wage is made as the highest which the capacity of the economy can sustain, the automatic adjustment of that basic wage upon price index numbers cannot be justified, since movements in the index have no relation to the movements in the capacity of the economy".\* After examining the state of the economy and the possible disastrous extension of inflation, the Court decided that the nation had not the capacity to pay a basic wage of the amount to which automatic quarterly adjustments would have brought it.

In its judgment, the Court stated that in future a yearly assessment of the capacity of Australia for the purpose of fixing a basic wage would be most appropriate and that it would encourage any steps to have the Court fulfil such a task each year.

For further details, see *Labour Report* No. 46, page 67.

(v) *Basic Wage Inquiry*, 1956-57. On 13th November, 1956, the Commonwealth Conciliation and Arbitration Commission in Presidential Session commenced to hear claims by the combined unions for an increase of the basic wage to the amount it would have reached if automatic quarterly adjustments had remained in force and for the restoration of automatic quarterly adjustments.† This application was treated by the Commission as a general application for alteration of the basic wage in all Commonwealth awards.

The unions' claims were opposed by the respondent employers. Victoria and South Australia were the only States to appear before the Commission and the Commonwealth Government intervened in the public interest. Victoria neither supported nor opposed the application by the unions. South Australia opposed the unions' claims and suggested that, if an increase in the basic wage were granted, the Commission should decide on the increase to be added to the six capitals basic wage, and then apportion that increase among the six capital cities on a basis accurately reflecting the differences in their cost of living. The Commonwealth opposed the restoration of the automatic adjustment system, whatever index was used for this purpose.

After hearing submissions by counsel for the unions that automatic quarterly adjustments of the basic wage should be restored and argument as to the appropriateness of using the "C" Series Index for this purpose, the Commission reaffirmed the decision of the Court in 1953, which, it said, "was primarily based on the view that there is no justification for automatically adjusting in accordance with a price index a wage assessed as the highest that the capacity of the community as a whole can sustain".‡ Accordingly, the claim for restoration of automatic quarterly adjustments was refused.

The Commission, having considered all aspects of the state of the economy, decided that the adult male basic wage should be increased by 10s. a week, payable from the first pay-period to commence on or after 15th May, 1957. The basic wage for adult females was increased by 7s. 6d., with proportionate increases for juniors and apprentices.

The historical background of differential rates of basic wage for respective cities and towns was examined by the Commission and it acknowledged that the Federal basic wage had two components. The first and greater component differed for each capital city and represented a rate of wage calculated by the use of "C" Series retail price index numbers for the June quarter, 1953, and the second component, common to all places, was the uniform 10s. awarded by the Court in 1956. On the question of whether the increase should be of a uniform amount, the alternative open to the Commission appeared to be either to follow what the Court did in 1956, or to recalculate the inter-capital-city differentials of the newly-fixed standard basic wage according to the latest "C" Series index numbers. The Commission decided to grant an increase of a uniform amount.

Judgment was delivered on 27th April, 1957. The Commission advised that it approved an annual review of the basic wage and would be available for this purpose in February, 1958. However, although favouring an annual review of the basic wage, the Commission considered that "it would not be proper for it nor would it wish to curtail the existing right of disputants to make an application at whatever time they think it necessary to do so".§

A more detailed summary of the judgment may be found in *Labour Report* No. 46, pages 68-71.

(vi) *Basic Wage Inquiry*, 1958. On 18th February, 1958, the Conciliation and Arbitration Commission commenced hearing an application by unions respondent to the Metal Trades Award for an increase of the basic wage to the amount it would have reached had the quarterly adjustment system been retained, plus an addition of 10s., and for restoration of quarterly adjustments.||

\* *Commonwealth Arbitration Reports*, Vol. 84, p. 175.

† 87 C.A.R., p. 439.

‡ *Ibid.*, p. 445.

§ *Ibid.*, p. 459.

|| 89 C.A.R., p. 287.

These claims were opposed by private employers and by the State of South Australia, which also contended that, as the cost of living was much lower in Adelaide than in Melbourne and Sydney, greater disparities in basic wage rates than then existed should be determined if, against its submission, any general increase in the basic wage were decided upon. Tasmania, the only other State represented, made no submissions. The Attorney-General of the Commonwealth intervened in the public interest, and leave to intervene was granted to a number of professional, salaried and public service organizations.

In its judgment, delivered on 12th May, 1958, the Commission rejected the submission by the Professional Officers' Association that consideration should be given to the question whether increased capacity should be reflected in an increased basic wage only or extended also to the marginal or secondary contents of aggregate wages and salaries. The Commission also rejected the submission by the Australian Council of Salaried and Professional Associations that when the Commission looked at the capacity of industry to pay and gave an increase in the basic wage, it always kept something in reserve for a subsequent marginal claim.

The claim of the unions for the restoration of the 1953 basic wage standard was rejected by the Commission on the same ground as in its 1957 judgment, i.e. that it was unsafe to assume that the economy could sustain the 1953 rate as a "standard" in real terms.

The Commission then considered the three specific issues before it, namely, (a) should the system of automatic adjustments be restored? (b) should the basic wage be increased, and if so, by what amount? and (c) should there be uniform or disparate increases?

Counsel for the unions submitted that the unions still regarded the "C" Series Index as a proper guide for the determination of basic wage levels, but that if this contention were unacceptable to the Commission, there should be an immediate decision upon principle, and later, if need be, an inquiry in an effort to ascertain a proper price index. He also submitted that there should be, from time to time, additions to wages to afford to workers their proper share of increased productivity and efficiency, and that although the unions had never claimed that increments for increased productivity could under present circumstances be made by way of automatic adjustment, the objective of wage increases commensurate with price increases could best be achieved by the use of an automatic adjustment system. After having considered the submissions, and without hearing arguments against the proposition, the Commission rejected the application for the restoration of automatic adjustments and for a deferred inquiry thereon. In the reasons for its judgment, the Commission stated that there was nothing in the submission to justify a departure from the decisions of 1953, 1956 and 1957 to reject automatic wage adjustments. The Commission also again expressed the opinion that a yearly assessment of the capacity of Australia for the purpose of fixing a basic wage would be most appropriate.

The Commission was unanimously of the opinion that the position of the economy regarded as a whole was such as to justify an increase in the basic wage, but a difference of opinion existed as to what the amount of the increase should be. Kirby *C.J.* and Gallagher *J.* considered that it was undesirable in the interests of all to grant an increase higher than 5s.; Wright *J.* considered that a basic wage level substantially higher than that proposed by the majority was justified. The decision of the majority prevailed, and the basic wage for adult males under Federal awards was therefore increased by 5s. a week.

The South Australian Government submitted that economically there was no scope at all for a basic wage increase anywhere in Australia, and again pursued the question of inter-city differentials as an answer to the union claim that the amount of the basic wage in Adelaide should be calculated by reference to the "C" Series retail price index numbers for that city. The substance of the State's case was that the actual cost of living was so much lower in Adelaide than in Melbourne and Sydney that greater disparities in basic wage rates than then existed should be determined by the Commission, if any general increase in the basic wage were decided upon. Subject to a stipulation that no reduction should be made in the existing basic wage rate for Adelaide, counsel for the South Australian Government claimed that the rate should be approximately 10 per cent. below the rate fixed for Sydney instead of approximately 5 per cent. below, as it then was. The Commission rejected the claim on the ground that it would not be wise or just to apply it in South Australia in view of the fact that it was neither sought nor supported by any other party, and its application to the government and its instrumentalities alone was not sought. The Commission indicated that the issues involved in inter-city differential wage rates were complex and could not be decided after a brief hearing.

The new basic wage rates for employees under Federal awards operated from 21st May, 1958.

(vii) *Basic Wage Inquiry*, 1959. On 24th February, 1959, the Conciliation and Arbitration Commission commenced hearing an application by unions respondent to the Metal Trades Award for an increase of the basic wage to the amount it would have reached had the quarterly adjustment system been retained, plus an addition of 10s., and for restoration of quarterly adjustments.\* A large number of applications for similar variation of other awards were ordered to be treated as involved in the inquiry, and as such to be decided upon the evidence, material and submissions made from the beginning of the hearing.

The application of the unions was opposed by private employers generally, and by the State of South Australia and two of its instrumentalities. Tasmania was the only other State represented, and it appeared in support of the application of the unions in regard to the increase of the basic wage and the restoration of the quarterly adjustment system. The Commonwealth Government intervened in the public interest and submitted that the application for restoration of the automatic adjustment system should be refused. The Commonwealth again supplied, for the benefit of the Commission and the parties, economic and statistical information and material, and, in addition, without making a particular submission as to whether there should be an increase, made a general submission on the state of the national economy.

Organizations of employers in the pastoral industry asked for a reduction in the basic wage in the Pastoral Award of £1 5s., being the aggregate amount of the increases granted in 1956, 1957 and 1958. The Commission decided to join these applications in the main hearing on 17th March, 1959, as a matter of procedure only, and without deciding affirmatively that the Commission as constituted for that hearing had power to grant them in whole or in part. At the conclusion on 5th May, 1959, of submissions in support of these applications and without calling upon employees in reply, the Commission stated that it would reject the applications for reduction of the basic wage in the Pastoral Award, and again indicated that the question of jurisdiction as to whether the Commission had the power to decide a different basic wage remained "undecided and open".

On 5th June, 1959, the three Judges delivered separate judgments. On the question of whether the system of automatic quarterly adjustments should be restored, the members of the Commission were divided in opinion, and therefore the question was decided in accordance with the decision of the majority. The majority decision, namely, that of Kirby C.J. and Gallagher J., was that the claim of the unions for restoration of quarterly adjustments should be refused. Foster J. dissented.

The members of the Commission were unanimous in the opinion that there should be an increase in the basic wage, but as to the amount of the increase they were divided in opinion as follows. The President, Kirby C.J., was of opinion that the increase should be 15s. a week, and that the increased basic wage should become payable as from the beginning of the first pay-period commencing on or after 11th June, 1959. Foster J. was of opinion that the increase should be 20s. a week, payable as to 10s. as from the first pay-period in July, 1959, and as to the balance by increases of 2s. 6d. for four quarters commencing 1st January, 1960. Gallagher J. was of opinion that the increase should be one of 10s. a week, and that the increased wage should become payable as from the date chosen by the President. Foster J., while holding his opinion, decided to concur in the decision proposed by the President.

A summary of the separate reasons for judgment was published in Official Year Book No. 46, pages 437-9.

(viii) *Basic Wage Inquiry*, 1960. On 16th February, 1960, the Conciliation and Arbitration Commission, constituted in Presidential Session by Kirby C.J. (President), Ashburner and Moore J.J. (Deputy Presidents), commenced hearing an application by respondent unions for the restoration to the Metal Trades Award of quarterly adjustments to the basic wage and for an increase in the amount of the basic wage. On the six capital cities rate, the amount of the increase sought was 22s. a week.† This amount was composed of two parts—firstly, an addition of 5s. a week to restore to the basic wage the same real value as it had in 1953, and, secondly, a further amount of 17s. representing the unions' estimate of the minimum increase in productivity which had occurred in the period since the automatic adjustment system was abolished.

The Commonwealth Government intervened in the public interest and again presented a detailed analysis of the economic situation of Australia, together with comments on fiscal and budgetary policy. It also announced its opposition to the unions' application both for restoration of automatic quarterly adjustments and for an increase in the basic wage.

\* *Commonwealth Arbitration Reports*, Vol. 91, pp. 683-4.

† 94 C.A.R., p. 313.

The State of South Australia presented material to the Commission to show the effect which wage increases would have on its finances, and opposed the unions' application. Victoria, Queensland and Western Australia presented information to show how their finances would be affected by wage increases, but neither supported nor opposed the claims of the applicants. Tasmania indicated that it supported the application for restoration of quarterly adjustments, but made no submissions.

In its judgment, delivered on 12th April, 1960, the Commission refused the unions' application. A summary of the judgment is given in the following paragraphs. Further particulars may be found in Official Year Book, No. 47, pp. 443-6.

*Application for Restoration of Quarterly Adjustments.* Counsel for the unions criticized the decision in the 1953 inquiry to abolish automatic quarterly adjustments to the basic wage and also the decisions, in subsequent inquiries, against their re-introduction. He submitted that it would be inequitable and unjust not to restore the practice which existed for many years prior to 1953, of having the basic wage automatically adjusted each quarter in accordance with movements in a price index. He relied in particular on the 1934 basic wage judgment.

In refusing the application, the Commission stated that the decision in the 1934 case was not relevant, as the question of automatic quarterly adjustments must be decided in the light of existing situations and practices. In 1934, the basic wage was determined for an undefined period and automatic quarterly adjustments applied. In 1960, the Commission was considering a situation in which in practice the basic wage was re-assessed each year. The Commission decided that it was preferable to fix a basic wage which it considered just and reasonable for the ensuing twelve months and then review it. In the Commission's view it was not inequitable or unjust not to restore automatic adjustments.

*Application to Increase the Basic Wage.* The Commission referred to the two elements that comprised the total wage paid to most workers under federal awards, namely, the basic wage and a margin. The existence of these two elements was a result of the history of federal wage fixation and had received legislative approval. The legislation required that the basic wage and margins be dealt with by differently constituted benches of the Commission. The basic wage could be altered only by the Commission in Presidential Session, that is, by a bench constituted by three or more judges; margins could be altered by a single member of the Commission or by a full bench constituted by at least three members of whom at least one had to be a judge, and the President could, on the ground of public interest, direct that applications for alterations of margins be dealt with by a full bench. The Commission then went on to state briefly the recent history of basic wage and marginal fixation and referred to the four basic wage increases in the years 1956 to 1959 and the increases in margins in 1947, 1954 and 1959. The Commission expected that, in the light of the history of marginal fixation since 1947, it would be asked to consider the question of general marginal increases every few years. So long as its decisions regarding metal trades margins were given general application, and so long as the annual review of the basic wage continued, it followed that in one particular year the Commission constituted by a full bench of judges would review the basic wage and, constituted by a mixed bench, review margins. When the economy was found capable of sustaining an increase in both the basic wage and margins, it followed that the economic and psychological effect of each increase was affected and indeed highlighted by the other. This happened in 1959, when the basic wage was increased as from June by 15s., or an increase of 6 per cent., and margins were increased as from December by 28 per cent. of the amount of the margins existing as a result of the 1954 review by the Court. Together, the 1959 increases approximated 8 to 10 per cent. of award wages.

The Commission was required by legislation to treat the basic wage and margins separately, but although constituted differently for each task, at the time of fixation of rates it had to look forward to the period which its decision would cover; that is, a year for the basic wage and, generally speaking, a longer period for margins. In dealing with the application then before it, the Commission had to decide whether the basic wage should again be increased, although less than a year had elapsed since increases were granted in both the basic wage and margins.

The unions submitted that since 1952-53 all the economic indicators customarily used by the Commission had shown significant improvement. The employers submitted that there were two factors dominating the economic scene, namely, the two wage increases granted by the Commission in 1959, and the lifting of import restrictions by the Commonwealth Government. The whole of the economic material available to the Commission had to be

discounted by the fact that the combined effect of the two wage increases had not at that time been felt by the economy. As to the lifting of import restrictions, the likelihood was that there would be an appreciable increase in the amount of imports, which would render more difficult the task of local manufacturers, a task already made difficult by the wage increases in 1959.

The Commonwealth Government stated that, although no quantitative estimate could be made of the increase in imports likely to occur as a result of the lifting of import restrictions, the significance of their removal was that it had come at a time when the effects of the 1959 wage increases had not been fully felt. The effect on the annual wages bill of the increased margins was estimated to be about £100 million and the direct cost of the 1959 basic wage increase about £65 million. In the Commonwealth's view, these increases would raise costs and price levels significantly and further secondary effects would follow. They would also give a further strong stimulus to the demand for goods and services. The Commonwealth Government submitted that what were needed were a firm rejection of any new measures that would add to current inflationary pressures and time for the adjustment of the economy to the general wage increases of 1959. The Commission considered that such a clear statement of the Commonwealth Government's attitude, supported by submissions and economic material, was a matter which it must seriously take into account.

Having referred to the substantial increases in both basic and secondary wages that had been granted in the previous twelve months to employees under federal awards, and to the fact that their effects had not at that time been reflected in the economy, the Commission concluded:—"We consider that it would be unsafe and perhaps dangerous to increase the basic wage at this point of time. We have formed this opinion with a full sense of the obligation which this Commission has to fix the basic wage from time to time at the highest amount that the economy can sustain so that the wage and salary earner may obtain his proper share of goods and services. On the other hand we are mindful of the danger to the whole community, including the wage and salary earner, of the basic wage being fixed at an amount which might increase inflation and upset the stability of the economy."\*

(ix) *Differential Basic Wage Inquiries*, 1960. On 9th August, 1960, the Commonwealth Conciliation and Arbitration Commission commenced hearing claims by:—(a) the Federated Engine Drivers and Firemen's Association of Australia to vary the Engine Drivers and Firemen's (General) Award by eliminating country differentials from basic wages prescribed therein; (b) employers' associations in South Australia to vary the Metal Trades Award by providing that future basic wage increases for Adelaide should be 25 per cent. less than basic wage increases for Sydney until the Adelaide basic wage was 90 per cent. of the Sydney basic wage, and that the basic wage applicable in areas other than Adelaide, Whyalla and Iron Knob should be £13 8s. and should remain unchanged until the Adelaide rate reached £14.

Judgment was delivered on 14th December, 1960. The Commission granted the application to eliminate specified country differentials from the Engine Drivers and Firemen's (General) Award, the new basic wages to be payable from the beginning of the first pay-period commencing on or after 1st January, 1961. Other awards were adjusted similarly on application to the Commission. The employers' applications in respect of basic wages in South Australia were both rejected.

(x) *Basic Wage and Standard Hours Inquiry*, 1961. On 14th February, 1961, the Commonwealth Conciliation and Arbitration Commission, constituted by Kirby C.J. (President), Ashburner and Moore JJ. (Deputy Presidents), commenced hearing applications by employers and unions for variation of the Metal Trades Award. In the first application the employers sought to increase the number of ordinary working hours per week from 40 to 42, with a concomitant increase in weekly wages by an amount equivalent to two hours pay at ordinary rates, and to effect certain other consequential variations. In the second the unions applied for an increase in the basic wage on a six capital cities basis by the amount of 49s. (which was amended during the hearing to 52s.) and for the re-introduction of automatic quarterly adjustments based on the "C" Series Retail Price Index. The amount claimed represented 27s. (30s.) for cost of living increases since 1953 and 22s. to reflect increases in productivity since that time.

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\* *Commonwealth Arbitration Reports*, Vol. 94, p. 321.



In its judgment, delivered on 4th July, 1961, the Commission refused the employers' application and the unions' application for restoration of quarterly adjustments, and increased the basic wage of adult male employees covered by federal awards by a uniform amount of 12s. a week, payable from the beginning of the first pay-period commencing on or after 7th July, 1961.\*

The applications were heard together, but although from time to time reference was made to the employers' claim, in essence it was the unions' claim which was to the forefront and with which all the parties principally concerned themselves.

*The Unions' Claims.* In dealing with the unions' claims, the Commission first discussed its own role and that of the Commonwealth and States.

In view of certain propositions put forward which seemed to be founded on the assumption that it had jurisdiction to deal with economic matters at large, the Commission once again set out the role and function of a federal arbitral tribunal in cases such as this. After citing what had been said in earlier judgments, the Commission further stated:—"We are not national economic policy makers or planners. We are confined to the legislation under which we act, and, in particular, in basic wage cases we have the function of deciding only what is a just and reasonable basic wage. This does not mean of course, that we have not to consider seriously the probable effects of our decision on the economy."

The question of what weight the Commission should give to the attitude and submissions of the Commonwealth Government was again raised. In the 1960 Basic Wage Inquiry, the attitude of the Commonwealth was positively stated to be one of opposition to a wage increase, but in the 1961 Inquiry, although the Commonwealth followed its usual practice of supplying, for the benefit of the Commission and the parties, certain economic and statistical material, it expressed no attitude other than its opposition to the re-introduction of quarterly adjustments. The Commission stated that it was not concerned with drawing inferences, as it had been asked to do, from the material presented, as to whether the Commonwealth had an attitude, and as to what it might be. The mere fact that the Commonwealth adopted an attitude before the Commission would not result in that attitude being accepted. Any opposition to or support of any claim by the Commonwealth would be treated on its merits.

All States except New South Wales were represented at the hearing. South Australia made no submissions and called no evidence. Tasmania indicated its support for the unions' application for the restoration of automatic adjustments, plus an adjustment of the basic wage to the level indicated by the movement in the "C" Series Index, but presented no material. Victoria, Queensland and Western Australia neither supported nor opposed the application of the unions, but all presented some statistical information.

In claiming the re-introduction of automatic quarterly adjustments, counsel for the unions submitted, firstly, that the reasoning in each of the judgments of the Court and the Commission from 1952-53 to 1960 was wrong and that there was in none of them any proper reason for rejecting the principle of automatic quarterly adjustments; and secondly, that it was wrong for the Commission to fix a wage based on the capacity of the economy and not to provide some machinery which would ensure that the value of the wage was not subsequently eroded by price movements when prices increased.

The Commission considered it indisputable that at the time of its fixation the amount of a basic wage is both a money wage and a real wage, but the value of the real wage is altered by subsequent changes in price levels. Counsel for the unions submitted that a real basic wage should be determined from time to time with some interval longer than one year between determinations, and that the real value of the basic wage between determinations should be maintained automatically by adjustment in accordance with a price index. Unless this were done, the amount of goods and services that could be purchased by the basic wage would decline as prices rose.

The Commission was asked to assume that between basic wage fixations the capacity of the economy to maintain a basic wage would increase or remain constant. If capacity were to diminish, the unions argued, the Commission was of easy access and employers could seek corrective action. The Commission's duty was to fix a just and reasonable basic wage, and the provision of automatic quarterly adjustments would ensure that this was done. Further, the provision of automatic adjustments would relieve the Commission of the necessity of annual reviews of the state of the economy. The unions claimed that it was not practicable for the Commission to make a proper assessment of the economy, including movements in productivity, every twelve months, and to give proper consideration to the fixation of a new real basic wage.

\* Print No. A7848, p. 3.

The Commission rejected the employers' argument that the unions were really asking it to return to a needs basic wage as distinct from a capacity basic wage.

It went on to consider the practical difficulty which would in the past have confronted both the Court and the Commission if they had attempted to ensure that a basic wage fixed by them could be properly maintained at its real level. The Commission stated:—" . . . the 'C' Series Index was over a period becoming suspect and the Court and the Commission could not have relied on it to achieve a proper result. The emergence of the Consumer Price Index, however, has removed that difficulty and we are therefore now able to seek to ensure that the basic wage which we fix should, subject to our supervision, maintain its real standard; in other words, that employees should, between fixations of the real basic wage and subject to our supervision, continue to be able to purchase the same amount of goods and services with the basic wage portion of their wage. We add that amongst other things the emergence of the Consumer Price Index has also enabled us to fix at this time a standard which, in our view, is more likely to be properly maintainable than recent past standards."\*

Having reached the conclusion that the principle of the maintenance of the purchasing power of the basic wage could be adopted, the Commission found it unnecessary to deal with the first part of the unions' argument, as to the correctness or otherwise of earlier decisions.

After comparing the "C" Series Retail Price Index and the Consumer Price Index, the Commission said:—"In our view the material available demonstrates the superiority of the Consumer Price Index over the 'C' Series Retail Price Index. The former is an index recently constructed by the Commonwealth Statistician in order to give a proper and accurate up-to-date coverage of movements in retail prices. The latter index, on a regimen constructed many years ago, can no longer in our view be considered reliable for wage-fixing purposes. We find the Consumer Price Index suitable under present circumstances for the maintenance of the purchasing power of the basic wage we will now fix."†

It was then necessary to consider the question of how movements in the Consumer Price Index could be used. In the 1959 and 1960 basic wage decisions the Commission had stated that it was preferable to have an annual review rather than provide for automatic adjustments. However, with the publication of the Consumer Price Index, upon which greater reliance could be placed, what had been said in those two cases was no longer adequate. Nevertheless, the Commission was not prepared to return to a system whereby adjustment was purely automatic, because it thought that there should be some safeguard. Although the Consumer Price Index was preferred to the "C" Series Retail Price Index, it could not be assumed that this index would at all times so accurately measure movements in retail prices that the Commission would be prepared to apply its workings automatically to the basic wage.

In its judgment, the Commission stated:—"We consider it desirable that the application of the Consumer Price Index should always be subject to control by the Commission and the Commission should be able to decide whether a particular increase or decrease in the figures as disclosed in the Consumer Price Index should be applied to the basic wage. Our present opinion is that this consideration of prices should take place annually. We will each year make the assumption that the effect of movements in the Consumer Price Index should be reflected in the basic wage unless we are persuaded to the contrary by those seeking to oppose the change. As the basis of our decision is the desirability of maintaining the value of the real wage based on the concept of national capacity, the appropriate matter for consideration would appear to be what should be the effect on the six capital cities basic wage of movements in the six capital cities index. The resulting figure will be applied to all federal basic wages.

"Since such a consideration of price movements is to take place annually, the question remains whether the Commission should at the annual hearing continue to review all factors in the economy to decide whether or not to change the level of the real basic wage. It seems to us that once the question of prices is dealt with otherwise, a review of the economy generally and in particular of productivity increases could more properly take place at longer periods of time, say, every three or four years. This statement of our views does not, of course, preclude any party from seeking to exercise its right to come to the Commission more frequently than every three or four years to seek a change in the real basic wage but, except in unusual circumstances, we consider such a period a proper interval between reviews of this kind."‡

The Commission concluded that the basic wage which it had fixed took into account increases in productivity up to June, 1960, and it therefore anticipated that a review of the real basic wage would not be necessary for some three years. The Commission went on:—

\* Print No. A7848, p. 10.

† Ibid., p. 11.

‡ Ibid., p. 12.

"If our anticipation is correct, in the proceedings next year the only issue will be whether or not the money wage should be adjusted in accordance with any change in the Consumer Price Index. The onus will be on the party opposing such an alteration to show that it should not be made. If the price index has risen the unions may rely *prima facie* on that fact. It will then be for the employers to show that the increase in prices is of an exceptional character . . . so that it should not be reflected in a basic wage increase or that there is some special factor in the economy which would make it inadvisable to allow the increase."\*

The Commission had in the past felt some difficulty in endeavouring to make a satisfactory assessment of the economy from the long-range point of view every twelve months, and this difficulty played its part in the Commission's attempt to confine short-term considerations to price movements, and to allow a longer period of time between considerations of the long-term trends in the economy.

On the subject of departure from past practices, the Commission said:—"We consider it to be of importance that the Commission should not only consider itself open to depart from past practices when the occasion demands, but that it should make it quite clear that this will happen when the Commission, after due and careful consideration, considers it necessary. The concept is fundamental to our decision to depart from what has become the practice of having annual reviews of the basic wage in which the question of price increases is only one of a number of factors and is not given any special status."\*

*Productivity.* The unions claimed that there should be an increase of 22s. a week in the basic wage, based on an estimated one per cent. per annum increase in productivity over the previous decade, and that since 1952-53 no proper allowance had been made in the amounts awarded for increases in productivity. On this subject, the Commission stated:—"The question of productivity has been mentioned from time to time in various judgments of the Commission and there is really no dispute between the parties that workers are entitled to their share of increases in productivity. The issues between the parties are whether productivity can be measured with reasonable accuracy and whether in fact through wage increases workers have received their share of increased productivity."†

In evidence presented by the unions, productivity was calculated by taking the Gross National Product for a year, deflating it by a price index and dividing the figure corrected for prices by (a) population and (b) the total of wage and salary earners in civilian employment. On the basis of these calculations, it was claimed that from 1952-53 to 1959-60 productivity had increased by about 2.6 per cent. per annum, "real" average earnings had increased by less than productivity, and the "real" basic wage had decreased. Counsel for the unions submitted that by taking 1 per cent. per annum the unions had clearly allowed for a safe margin of error.

In answer to this, the employers produced a similar type of calculation, but one that used a different deflator and 1949-50 as the base year. On this basis, it was claimed that the "real" basic wage had increased slightly more than productivity per person employed and some 10 per cent. more than productivity measured on a population basis, and "real" average weekly earnings had increased more than the "real" basic wage.

After considering the various calculations which had been submitted, the Commission concluded that 1952-53 was an abnormal year for the purpose of relevant comparison, and that 1949-50 was a more satisfactory starting point. In the Commission's view, it followed that the 1960 basic wage properly reflected increased productivity in so far as that could be approximately measured.

The employers claimed that the Commission should look at average weekly earnings as the true indicator of whether increases in productivity had been distributed to the work force, and that the only thing to be measured against productivity was what was in fact earned, and not the basic wage. In the Commission's view, the relevant consideration in fixing a basic wage was whether, if average weekly earnings properly reflected increased productivity but the basic wage did not, there was room for an increase in the basic wage based on the same increased productivity. In view of its finding that the 1960 basic wage did reflect increased productivity, the Commission concluded that it was unnecessary to decide the question on that occasion.

The Commission, having reviewed in detail indicators of the state of the economy, considered that the economy had the capacity to sustain an increase of 12s. in the basic wage and that that increase was the highest that could be sustained. This amount was sufficient to restore to the 1960 basic wage its purchasing power as measured by the Consumer Price Index.

\* Print No. A7848, p. 13.

† Ibid., p. 14.

The Commission considered the standard of the seven basic wages of the previous ten years and decided that the most appropriate one was the standard of 1960. It felt that the new basic wage combined in the result its conclusions on fundamental factors in a threefold way, because it was fixed at the highest amount the capacity of the economy allowed, it adopted as a standard that set by the basic wage of 1960, and it took account of productivity increases up to and including 1959-60.

Both the employers and the Commonwealth Government warned of the danger of inflation which might result from an increase in wages. However, the Commission pointed out that there was no legal reason why any increase in the basic wage should not be absorbed by over-award payments, although this might not be possible because of industrial pressure and scarcity of skilled labour. While the increase in wages granted would cause some increase in costs, the stimulation of demand would only restore it to the level of the previous year. The estimated increase of £60 million a year in wages and salaries would add less than 2 per cent. to the annual wages bill.

*The Employers' Claim.* The employers' claim was for an increase in standard hours from forty to forty-two per week, with a concomitant increase in the weekly wage equivalent to two hours pay at ordinary rates. This was to operate for four years, after which time weekly hours would revert to forty but the increased wage would remain. The Commission rejected arguments supporting this application, which stated that such a measure was called for by the balance of payments crisis, and that it would lead to increased productivity at stable prices and distribute more evenly the amount of overtime worked. The Commission did not think that the state of the economy was such that standard hours should be increased.

*Employees on Lower Margins.* During the course of the proceedings, the President asked for submissions on the question of whether by prescription of the basic wage special consideration should or could be given to those employees who receive a margin above the basic wage of, say, £1 a week or less. The Commission decided that even if it had jurisdiction it would not, as a matter of discretion, make a differential basic wage at that time.

*Annual Leave Decision.* The Commission rejected the view that the reasons given for not granting an increase in annual leave in 1960 should impel it to refuse an increase in the basic wage. The question of wages was more fundamental and more important to the worker than the question of leave, and reasons which might delay the granting of additional leave might not be of sufficient weight to delay a basic wage increase. Also, had an increase in annual leave been granted, the Commission might not have been able to grant the increase in wages.

*Decisions.* The decisions of the Commission were as follows.

- " 1. The employers' claim for an increase in the standard hours of work from forty to forty-two with a concomitant increase in the weekly wage equivalent to two hours' pay at ordinary rates is refused.
2. The unions' claim for restoration of automatic quarterly adjustments is refused.
3. The basic wages of adult male employees covered by federal awards will be increased by a uniform amount of 12s. per week.
4. The new rates will come into effect from the beginning of the first pay-period commencing on or after 7th July instant subject to special cases.
5. For the specific reasons set out in the judgment we consider that in February next the only issue in regard to the basic wage should be why the money wages fixed as a result of our decision should not be adjusted in accordance with any change in the Consumer Price Index and for the purpose of deciding that issue the Order giving effect to the decisions hereby announced will also provide for the adjournment of the application of the unions for increase of the basic wages under the Metal Trades Award to Tuesday, 20th February, 1962, in Melbourne, when such submissions thereon as are desired to be made will be heard.
6. The decision regarding increases in basic wages is applicable to all the applications which have been ordered by the Commission to be joined for hearing and decision with the original application and those joined applications are stood over to a date after 20th February, 1962, to be fixed by the Commission."

(xi) *Basic Wage Inquiry, 1962.* In accordance with decision No. 5 in the 1961 Inquiry (see above), the adjourned hearing was held on 20th February, 1962, before Kirby C.J., and Ashburner and Moore JJ.

Counsel for the unions submitted that, although the 1961 judgment represented a recognition of union claims as to the need to maintain the real value of the basic wage, it had not met in full the demands of the trade union movement. The unions intended to return to the Commission at the appropriate time to argue at length for the implementation of their policy as to the basic wage standard and the question of quarterly adjustment.

In the employers' submission, reference was made to the Commission's 1961 judgment as indicating a firm intention to confine argument in the current hearing to the quantum of any basic wage change and to exclude any re-examination of the Commission's departure from previously accepted principles. As the Consumer Price Index had shown practically no change between the March and December quarters of 1961, there could be no change in the basic wage. However, the employers' view was that in any hearing involving movement in the basic wage the parties must be free to discuss economic capacity to sustain the basic wage at any given level and the principles upon which it is computed.

Counsel for the Commonwealth stated that at the proper time the Commonwealth would appear before the Commission to present argument as to the use of price indexes in basic wage fixation and other important issues raised by the 1961 judgment. However the matter might come before the Commission as a matter of procedure, when circumstances called for the debate of any substantive issue the Commonwealth would be in a position to make further submissions.

The Commission decided that there would be no alteration in the amounts of the existing basic wages until further order; and further adjourned the application before it until 19th February, 1963. At the adjourned hearing the issues would be: (a) The issue set out in paragraph 5 of the decisions of 4th July, 1961 (*see* p. 497); (b) Any issue which a party desired to raise and of which it had given notice to the Industrial Registrar, the other parties and to the Attorney-General by 31st January, 1963. The applications referred to in paragraph 6 of the decision of 4th July, 1961, were stood over to a date after 19th February, 1963, to be fixed by the Commission with liberty to any of the parties to those applications to apply in the meantime.

(xii) *Basic Wage Inquiry*, 1963. This was an adjourned inquiry which arose out of an order made by the Commission on 20th February, 1962 (*see* p. 497). The hearing was held on 5th February, 1963 before Kirby C.J., Ashburner and Moore JJ.

During the proceedings, counsel for the unions discussed the various methods by which changes in the rates of basic wage could be calculated by using changes in the index numbers of the Consumer Price Index. Counsel asked for a direction by the Commission as to which method should be used.

In conformity with the decision in the 1962 Basic Wage Inquiry (*see* above), counsel for the employers gave notice to the Commission that issues and procedures referred to in the 1961 Basic Wage Judgment that related to the fixation of wages or conditions of employment by reference to the capacity of the national economy would, of necessity, be argued at the present hearings.

The employers submitted that the following matters were essential considerations in the hearing and determining of any application seeking to alter wages and conditions of employment on a national basis.

- (a) The role of the Commission in relation to government economic or fiscal policies, inflation, etc.
- (b) The justification for adjustment of wages by reference to a price index either automatically or *prima facie*, including the relationship between movements in a price index and variations in capacity of the national economy.
- (c) The relationship between the capacity of the economy to absorb increases in wages or labour costs and the movements or likely movements in national productivity.

Counsel for the unions pointed out that the matters raised by the employers could be discussed only before a Presidential Bench of the Commission and that the employers could not seek the right to argue the 1961 basic wage decisions before a bench of the Commission constituted otherwise.

In the judgment given on 5th February, 1963 the Commission said:—

“1. There will be no alteration in the amounts of the existing basic wage until further order of the Commission.

2. The application before the Commission is further adjourned until 18th February, 1964.

3. At such adjourned hearing the issues will be:

- (a) The issue set out in paragraph (5) of the decision of 4th July, 1961; and
- (b) Any issue which a party desires to raise and of which it has given notice to the Industrial Registrar, the other parties, and the Attorney-General, by the 31st January, 1964."

With regard to the matter of the use of statistics, which had been raised by counsel for the unions, the Commission felt that it was not the appropriate time to deal with the matter, but it would be further considered when it was appropriate.

The Commission referred to the matter raised by the employers concerning the considerations to be taken into account by the Commission when hearing applications to alter wages and conditions of employment, and ruled that it was not the appropriate time to deal with the submissions made.

If submissions were made before benches of the Commission differently constituted from the present one, then those benches were the ones to deal with their relevance, admissibility or otherwise.

The application referred to in para. 6 of the decision of 4th July, 1961, were further stood over to a date after 18th February, 1964, to be fixed by the Commission with liberty to any of the parties to these applications to apply in the meantime.

(xiii) *Rates Operative, Principal Towns.* The basic wage rates of the Commonwealth Conciliation and Arbitration Commission for adult males and females, operative as from the beginning of the first pay period commencing on or after 7th July, 1961, are as shown in the following table.

COMMONWEALTH BASIC WAGE: WEEKLY RATES(a), 1963

City or town	Rate of wage		City or town	Rate of wage	
	Adult males	Adult females		Adult males	Adult females
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
New South Wales—			Western Australia—		
Sydney ..	14 15 0	11 1 0	Perth ..	14 8 0	10 16 0
Newcastle ..	14 15 0	11 1 0	Kalgoorlie ..	14 15 0	11 1 0
Port Kembla—			Geraldton ..	15 1 0	11 5 6
Wollongong ..	14 15 0	11 1 0	Five Towns ..	14 9 0	10 16 6
Broken Hill ..	14 19 0	11 4 0			
Five Towns ..	14 14 0	11 0 6	Tasmania—		
Victoria—			Hobart ..	14 14 0	11 0 6
Melbourne ..	14 7 0	10 15 0	Launceston ..	14 10 0	10 17 6
Geelong ..	14 7 0	10 15 0	Queenstown ..	14 5 0	10 13 6
Warrnambool ..	14 7 0	10 15 0	Five Towns ..	14 12 0	10 19 0
Mildura ..	14 7 0	10 15 0			
Yallourn(b) ..	14 13 6	11 0 0	Thirty Towns ..	14 8 0	10 16 0
Five Towns ..	14 7 0	10 15 0			
Queensland—			Six Capital Cities	14 8 0	10 16 0
Brisbane ..	13 10 0	10 2 6			
Five Towns ..	13 11 0	10 3 0	Northern Territory—		
South Australia—			Darwin ..	15 7 0	11 10 0
Adelaide ..	14 3 0	10 12 0	South of 20th Parallel ..	14 14 0	11 0 6
Whyalla and Iron Knob(c) ..	14 8 0	10 16 0			
Five Towns ..	14 2 0	10 11 6	Australian Capital Territory—		
			Canberra ..	14 10 0	10 17 6

(a) Operative from the beginning of the first pay-period commencing on or after 7th July, 1961; female rates are 75 per cent. of male rates. (b) Melbourne rate plus 6s. 6d. loading for males; 75 per cent. of male rate for females. (c) Adelaide rate plus 5s. for males; 75 per cent. of male rate for females.

The following table shows the movements of this wage in all State capital cities and the six capital cities as a whole during the period 1939 to 1963.

**COMMONWEALTH BASIC WAGE: WEEKLY RATES, ADULT MALES(a)**

Date operative(b)	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Six capitals
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
September, 1939 ..	81 0	81 0	76 0	78 0	77 0	77 0	79 0
November, 1941 ..	89 0	88 0	84 0	84 0	85 0	85 0	87 0
" 1942 ..	97 0	97 0	91 0	93 0	91 0	92 0	95 0
" 1943 ..	99 0	98 0	93 0	94 0	94 0	95 0	97 0
" 1944 ..	99 0	98 0	93 0	93 0	94 0	94 0	96 0
" 1945 ..	99 0	98 0	93 0	93 0	94 0	94 0	96 0
" 1946 ..	101 0	99 0	94 0	95 0	95 0	97 0	98 0
December, 1946 ..	108 0	106 0	101 0	102 0	102 0	103 0	105 0
November, 1947 ..	112 0	109 0	105 0	106 0	106 0	107 0	109 0
" 1948 ..	122 0	120 0	115 0	116 0	116 0	118 0	119 0
" 1949 ..	132 0	130 0	125 0	126 0	129 0	128 0	129 0
" 1950 ..	146 0	143 0	135 0	137 0	139 0	139 0	142 0
December, 1950(c) ..	165 0	162 0	154 0	158 0	160 0	160 0	162 0
November, 1951 ..	207 0	199 0	185 0	195 0	197 0	199 0	200 0
" 1952 ..	237 0	228 0	216 0	229 0	228 0	230 0	231 0
August, 1953(d) ..	243 0	235 0	218 0	231 0	236 0	242 0	236 0
June, 1956 ..	253 0	245 0	228 0	241 0	246 0	252 0	246 0
15th May, 1957 ..	263 0	255 0	238 0	251 0	256 0	262 0	256 0
21st May, 1958 ..	268 0	260 0	243 0	256 0	261 0	267 0	261 0
11th June, 1959 ..	283 0	275 0	258 0	271 0	276 0	282 0	276 0
7th July, 1961 ..	295 0	287 0	270 0	283 0	288 0	294 0	288 0

(a) Rates prescribed by the Commonwealth Conciliation and Arbitration Commission (before 30th June, 1956, the Commonwealth Court of Conciliation and Arbitration). Rates include prosperity loadings, where applicable.

(b) Rates operative from the beginning of the first pay-period commencing in the month shown or commencing on or after the date shown. (c) From December, 1950 the basic wage rates for adult females have been 75 per cent. of the rates for adult males. (d) Automatic adjustment discontinued (see p. 488).

A table showing Commonwealth basic wage rates from 1923 to 1962 was published in the Appendix to *Labour Report No. 49*.

3. **Australian Territories.**—In the Northern Territory, there are two basic wages operating, one in respect of areas north of the 20th parallel of South Latitude, generally referred to as the "Darwin" rate, and the other in respect of areas south of that parallel and extending down to the 26th parallel (the "Port Augusta" rate).

The basic wage rates payable as from the beginning of the first pay-period commencing on or after 7th July, 1961 were:—"Darwin" rate, adult males £15 7s., adult females £11 10s.; "Port Augusta" rate, adult males £14 14s., adult females £11 0s. 6d.

In addition to these rates, special loadings were prescribed in Northern Territory awards following the fixation of the basic wage rates operative from November, 1951.

In the Australian Capital Territory, the rates payable as from the beginning of the first pay-period commencing on or after 7th July, 1961 were £14 10s. for adult males and £10 17s. 6d. for adult females.

Further details of basic wage rates in the Northern Territory and the Australian Capital Territory may be found in *Labour Report No. 49*, pages 114 to 118.

4. **Basic Wage Rates for Females.**—Reference should be made to *Labour Report No. 49* (pp. 112–14) for an account of the fixation of minimum rates and basic wages for adult females by the Commonwealth Court of Conciliation and Arbitration. At the end of the 1949–50 Basic Wage Inquiry, the Commonwealth Court of Conciliation and Arbitration, by a majority decision, fixed the basic weekly wage for adult females at 75 per cent. of the corresponding male rate from the beginning of the first pay-period commencing in December, 1950. This percentage has continued to be prescribed in subsequent inquiries.

5. *State Basic Wages.*—(i) *New South Wales.* The first determination under the New South Wales Industrial Arbitration Act of a standard "living" wage for adult male employees was made on 16th February, 1914, when the Court of Industrial Arbitration fixed the living wage at £2 8s. a week for adult males in the metropolitan area. A Board of Trade, established in 1918, with power to determine the "living" wage for adult male and female employees in the State, made numerous declarations from 1918 to 1925, but ceased to function after the *Industrial Arbitration (Amendment) Act*, 1926 transferred its powers, as from 15th April, 1926, to the Industrial Commission of New South Wales.

The adult male rate was determined on the family unit of a man, wife and two children from 1914 to 1925; a man and wife only in 1927, with family allowances for dependent children; and a man, wife and one child in 1929, with family allowances for other dependent children. However, with the adoption in 1937 of the Commonwealth basic wage, the identification of a specified family unit with the basic wage disappeared.

A State scheme of supplementing wages by child endowment became operative in New South Wales from July, 1927, and continued until superseded by the Commonwealth Government scheme in July, 1941. A brief account of the main features of the New South Wales system was given in Official Year Book No. 37, pages 485–6. For particulars of the Commonwealth scheme, see Chapter XV.

Shortly after the Commonwealth Court of Conciliation and Arbitration announced its decision in the 1937 Basic Wage Inquiry, the Government of New South Wales amended the *Industrial Arbitration Act* to make the State basic wage agree with the Commonwealth rate ruling in New South Wales, and to adopt, as far as practicable, the general principles of operation laid down by the Commonwealth Court. Further amendments to the *Industrial Arbitration Act* were made in 1950 to give effect to the new rates declared by the Commonwealth Court of Conciliation and Arbitration in the 1949–50 Basic Wage Inquiry (see page 487).

Differential basic wage rates for country areas (except Broken Hill) and for employees under Crown awards were eliminated by an amendment of the *Industrial Arbitration Act* in 1951. Separate rates for Broken Hill were discontinued in 1961 (see below).

Following the decision of the Commonwealth Court of Conciliation and Arbitration in September, 1953, to discontinue the system of automatic adjustment of the basic wage in accordance with changes in the "Court" Series retail price index numbers, the New South Wales Industrial Commission deleted the automatic adjustment clause from awards, etc., within its jurisdiction. As a result, the basic wages applicable for the State and operative from the beginning of the first pay-period commencing in August, 1953, remained unchanged until November, 1955.

In October, 1955, the *Industrial Arbitration Act* 1940–1955 was amended to provide for the automatic adjustment of the existing basic wage each quarter, in accordance with the movements in the Commonwealth Statistician's "C" Series retail price index numbers. The first adjustment, based on the index number for the September quarter, 1955, represented the amount which would have been added to the basic wage if quarterly adjustments had not been suspended, and was made payable from the beginning of the first pay-period in November, 1955. Automatic adjustments have continued to operate since that date.

Act No. 29, 1961 (assented to on 13th October, 1961) amended the *Industrial Arbitration Amendment Act*, 1961, by adopting the Consumer Price Index numbers in place of the "C" Series retail price index numbers for purposes of the automatic quarterly adjustment of the basic wage. The November, 1961, variation was the first based on the Consumer Price Index. Consumer Price Index numbers relate only to capital cities and the weighted average for the six capital cities, and as a result the Sydney basic wage rate became the rate for the whole of New South Wales, separate rates no longer being prescribed for Broken Hill and "5 Towns" after November, 1961.

From the beginning of the first pay-period in May, 1963, the basic wage for adult males was £15 2s. and for adult females £11 6s. 6d.

The *Industrial Arbitration (Female Rates) Amendment Act* (No. 42, 1958), which became operative on 1st January, 1959, defined the existing basic wage for adult females as being 75 per cent. of the adult male rate and made provision for equal pay for males and females in certain circumstances. Where the Industrial Commission or a Conciliation Committee is satisfied that male and female employees are performing work of the same or a like nature and of equal value, they shall prescribe the same marginal or secondary rates of wage. The basic wage for these adult females was prescribed as 80 per cent. of the appropriate basic wage for adult males as from 1st January, 1959. Thereafter, the basic wage was to be increased annually by 5 per cent., so that on 1st January, 1963, it became the same as that for adult males.



A table showing, for the period from 16th February, 1914 to November, 1962, the basic wage rates for adult males and females payable in Sydney was published in the Appendix to *Labour Report* No. 49, 1961.

(ii) *Victoria*. There is no provision in Victorian industrial legislation for the declaration of a State basic wage. Wages Boards constituted from representatives of employers and employees, with an independent chairman, for each industry group or calling, determine the minimum rate of wage to be paid in that industry or calling. In general, these Boards have adopted a basic wage in determining the rate of wage to be paid.

By an amendment to the *Factories and Shops Act* in 1934, Wages Boards were given discretionary power to include in their determinations appropriate provisions of relevant Commonwealth Awards. A further amendment to this Act in 1937 made it compulsory for Wages Boards to adopt such provisions of Commonwealth Awards. The 1937 Act, as amended, also gave Wages Boards power to adjust wage rates, "with the variation from time to time of the cost of living as indicated by such retail price index numbers published by the Commonwealth Statistician as the Wages Board considers appropriate". The Wages Boards thus adopted the basic wages declared by the Commonwealth Court of Conciliation and Arbitration and followed that Court's system of adjusting the basic wage in accordance with variations in retail price index numbers.

After the Commonwealth Court of Conciliation and Arbitration discontinued the system of automatic adjustment of the Commonwealth basic wage in September, 1953, a number of Wages Boards met in November, 1953, and deleted references to these adjustments. However, an amendment to the *Factories and Shops Act* in November, 1953, required Wages Boards to provide for the automatic adjustment of wage rates in accordance with variations in retail price index numbers.

In October, 1956, an amendment to the *Labour and Industry Act* (which had superseded the *Factories and Shops Acts* in 1954) deleted the automatic adjustment provision and directed Wages Boards in determining wage rates to take into consideration relevant awards of, or agreements certified by, the Commonwealth Conciliation and Arbitration Commission. As a result of this legislation, the last automatic quarterly adjustment of the basic wage made was based on the variation in retail price index numbers for the June quarter, 1956, and was payable as from the beginning of the first pay-period in August, 1956. Following the judgment of the Commonwealth Conciliation and Arbitration Commission in the 1961 Basic Wage Inquiry, Wages Boards met in July and August, 1961, and varied their determinations by incorporating the new Commonwealth rates. As the 1963 Basic Wage Inquiry resulted in no change being made to Commonwealth basic wage rates, the rates for Melbourne are £14 7s. a week for adult males and £10 15s. for adult females.

A table showing, for the period November, 1953, to July, 1961, the basic wage rates for adult males and females adopted by most Wages Boards was published in the Appendix to *Labour Report* No. 49, 1961.

(iii) *Queensland*. The *Industrial Conciliation and Arbitration Act* of 1929 established an Industrial Court, and provided that the Court could make declarations as to the basic wage and standard hours. This Act, as subsequently amended, was repealed by the *Industrial Conciliation and Arbitration Act* of 1961, which established, in addition to the Industrial Court, an Industrial Conciliation and Arbitration Commission. The full bench of the Commission, consisting of not less than three Commissioners, may make declarations as to, *inter alia*, the basic wage for males and/or females and the standard hours of work. The first formal declaration of a basic wage (£4 5s. for adult males) by the Queensland Court of Industrial Arbitration operated from 1st March, 1921. Prior to this declaration, the rate of £3 17s. a week for adult males had been generally recognized by the Court in its awards as the basic or living wage. The Queensland Industrial Conciliation and Arbitration Act provides that any basic wage declared must at least maintain an employee, his wife and family of three children in a fair and average standard of comfort.

From 21st April, 1942, the Queensland Industrial Court adopted the practice of making quarterly declarations of the basic wage on the basis of variations in the "C" Series retail price index number for Brisbane.

The Court granted increases of 7s. and 5s. to the basic wages for adult males and adult females respectively, payable from 23rd December, 1946, following the "interim" basic wage judgment of the Commonwealth Court of Conciliation and Arbitration announced earlier in December, 1946.

Following the decision of the Commonwealth Court of Conciliation and Arbitration to increase the male and female basic wages from December, 1950, the Queensland Industrial Court, after an inquiry, granted an increase of 15s. a week to both adult males and adult females, operative from 7th December, 1950. The new male rate was identical with the Commonwealth basic wage for the Brisbane metropolitan area and the basic wage payable to adult females became approximately 66 per cent. of the male rate.

In January, 1953, because the Court was not satisfied that the fall in the "C" Series index for Brisbane for the December quarter, 1952, was a true representation of the economic position for Queensland as a whole, it declined to make any alteration to the existing basic wage. However, quarterly adjustments were made for the next four quarters.

Following a Basic Wage Inquiry, the Court announced, on 11th June, 1954, that there would be no change in the basic wage rates declared for February, 1954. For the following four quarters, the Court also decided not to vary the existing basic wage rates. However, after considering the "C" Series index number for the quarter ended 30th June, 1955, and its relation to the index number for the March quarter, 1955, the Court announced that, as these figures showed a continued upward trend, the basic wage for adult males should be increased from 1st August, 1955. In this judgment, the Court emphasized that it held itself free whether or not to adjust the basic wage upwards or downwards in accordance with movements in the "C" Series retail price index numbers. The Court examined the movement in these index numbers for each subsequent quarter and announced variations in the basic wage.

On 22nd and 23rd April, 1958, the Court heard an application by combined unions for an immediate increase of £1 in the basic wage, on the ground that a state of emergency existed with regard to the cost of living. On 30th May, 1958, the Court dismissed the application.

In December, 1960, the Court determined that as from 1st May, 1961, the basic wage for adult females should be 75 per cent. of that for adult males.

In its basic wage declaration of 25th January, 1961, the Court referred to the opinion given by the Commonwealth Statistician that the "C" Series Retail Price Index had become an unreliable measure of retail price changes in recent quarters and to the fact that for current statistical purposes variations in retail prices were measured by the Consumer Price Index. Taking into consideration all relevant factors, including the approximate increase in price levels as disclosed by the Consumer Price Index, the Court decided to increase the basic wage for adult males by 4s.

The *Industrial Conciliation and Arbitration Act* of 1961, which came into operation as from 2nd May, 1961, provided that all persons interested must be given an opportunity to be heard before any general declaration as to the basic wage can be made.

Following an inquiry, the Commission, in a decision issued on 24th May, 1961, increased the adult male basic wage by 4s. a week, which was approximately the amount of the increase indicated by the Consumer Price Index for March quarter, 1961.

In September, 1961 the Commission heard an application by employer organizations for a declaration of a general ruling that "in future the basic wage for males and/or females shall not be reviewed merely by reason of any change in the Consumer Price Index at intervals of less than twelve months". The application was opposed by the trade unions generally. In a judgment delivered on 14th November, 1961, the Commission refused the employers' application.

An inquiry held in November and December, 1962, dealt with an application by unions for increases of £1 4s. in the adult male basic wage and 18s. in the adult female basic wage. The application was opposed by employer organizations generally, by the State of Queensland and by the Queensland Commissioner for Railways. Judgment was given on 20th December, 1962, the application being refused.

A further application was made by trade unions for a declaration of a basic wage, and an inquiry was held in April, 1963. Employers generally opposed the application, and the State of Queensland, while adopting a neutral attitude, submitted information for the assistance of the Commission. In a judgment delivered on 26th April, 1963, the Commission increased the basic wage by 2s. for adult males and by 1s. 6d. for adult females from 6th May, 1963.

The rates payable in the Southern Division (Eastern District) from 6th May, 1963, were £14 6s. for adult males and £10 14s. 6d. for adult females.

In addition to the basic wage for the Southern Division (Eastern District), which includes Brisbane, adult males in other areas receive district allowances. As from 2nd February, 1959, the allowances have been:—Southern Division (Western District) 10s. 6d., Mackay Division 9s., Northern Division (Eastern District) 10s. 6d., Northern Division (Western District) £1 12s. 6d. The allowances for adult females are not less than 75 per cent. of those for adult males.

In the Appendix to *Labour Report* No. 49, a table was published showing adult male and adult female basic wage rates payable in the Southern Division (Eastern District) from 1st March, 1921, to 29th May, 1961.

(iv) *South Australia.* The *Industrial Code*, 1920–1958 provides that the Board of Industry shall after public inquiry declare the “living wages” to be paid to adult male and adult female employees. The Board has power also to fix different rates to be paid in defined areas.

The family unit was not specifically defined in the Code, but the South Australian Industrial Court in 1920 decided that the average employee in respect of whom the living wage was to be declared was a man with a wife and three children. However, the concept of a family unit disappeared with the adoption of basic wage rates declared by the Commonwealth Conciliation and Arbitration Commission (*see below*).

The first declaration by the Board of Industry became operative from 4th August, 1921, when the living wage for adult male employees in the metropolitan area was determined at £3 19s. 6d. a week. A table showing the living wages declared from time to time was published in the Appendix to *Labour Report* No. 49.

Following the “interim” increase in the “needs” basic wage of the Commonwealth Court of Conciliation and Arbitration announced on 13th December, 1946, the South Australian Government made a provision in the *Economic Stability Act* 1946 for the declaration by the Governor of a living wage based on the Commonwealth basic wage for Adelaide. This action was taken because the Board of Industry had made a determination on 5th September, 1946, and under the *Industrial Code* was not able to make a further determination for six months.

The *Industrial Code Amendment Act* 1949 made provision for the quarterly adjustment of the living wage in accordance with the variations in the Commonwealth basic wage for Adelaide. In effect, this made the State living wage and the Commonwealth basic wage equal from the beginning of the first pay-period commencing in February, 1950. The prescribed adjustment to the female living wage was seven-twelfths of that made to the Commonwealth male basic wage. The Board of Industry retained power to amend the living wage, but any new living wage was to be adjusted quarterly as above.

Following the decision of the Commonwealth Court of Conciliation and Arbitration in the 1949–50 Basic Wage Inquiry, the South Australian *Industrial Code* was amended to provide for declarations of the living wage by proclamation to prevent unjustifiable differences between the State and Commonwealth rates of wage. By proclamation dated 30th November, 1950, the South Australian living wage in the metropolitan area was made identical with the December, 1950, rates fixed by the Commonwealth Court of Conciliation and Arbitration for the metropolitan area of South Australia. The female basic wage, which had been approximately 54 per cent. of the male basic wage, was increased to 75 per cent. of the corresponding male rate.

When the Commonwealth Court of Conciliation and Arbitration discontinued quarterly adjustments to Commonwealth basic wages in September, 1953, the South Australian living wage also ceased to be varied quarterly, and since that time it has remained the same as the Commonwealth basic wage for Adelaide. Following the Commonwealth basic wage inquiries in 1956 and subsequent years, increases were made to the South Australian living wages by proclamation. The rates operative from 10th July, 1961, were £14 3s. for adult males and £10 12s. for adult females.

(v) *Western Australia.* The *Industrial Arbitration Act* 1912–1961 provides that the Court of Arbitration may determine and declare a basic wage at any time on its own motion and must do so when requested by a majority of industrial unions or by the Western Australian Employers' Federation, with the limitation that no new determination shall be made within twelve months of the previous inquiry.

The term "basic wage" is defined in the Act as "a wage which the Court considers to be just and reasonable for the average worker to whom it applies". In determining what is just and reasonable, the Court must take into account not only the "needs of an average worker", but also the "economic capacity of industry" and any other matters it deems relevant.

The Act provides that the Court of Arbitration may make adjustments to the basic wage each quarter, if the statement supplied by the State Government Statistician showing retail price index numbers and monetary equivalents in terms of the State basic wages indicates that there has been a variation of 1s. or more a week compared with the previous quarter. These adjustments generally apply from the dates of declaration by the Court.

The first declaration of the basic wage by the Court of Arbitration, after the authority to fix one was vested in the Court in 1925, operated from 1st July, 1926. The family unit is not specifically defined in the Act, but it has been the practice of the Court to take as a basis for its calculations a man, his wife and two dependent children. Since that date, the principal inquiries have been those of 1938, 1947, 1950 and 1951. A table showing declarations of the basic wage by the Court of Arbitration, operative from 1st July, 1926, to 30th October, 1961, will be found in the Appendix to *Labour Report* No. 49.

Following the judgment of the Commonwealth Court of Conciliation and Arbitration in the 1949-50 Basic Wage Inquiry, the Western Australian Court of Arbitration decided that the basic wage should be increased by £1 a week for adult males and by 15s. a week for adult females. As the result of a subsequent inquiry, the basic wage for adult females was increased from 1st December, 1951, to 65 per cent. of the corresponding male rate. This was subject to the condition that the increase in the basic wage should be offset by the reduction in, or deletion of, existing margins as specified by the appropriate award or determination.

Following the decision of the Commonwealth Court of Conciliation and Arbitration, in September, 1953, to discontinue quarterly adjustments to Commonwealth basic wages, the Western Australian Court of Arbitration exercised its discretionary power and declined to make any adjustments to the basic wage from November, 1953, to the June quarter, 1955.

However, from 9th August, 1955, the Court decided to increase the adult male basic wage by 5s. 11d. a week for Perth and to make corresponding increases for other areas. No further change was announced in the basic wage until January, 1956, and for each subsequent quarter to September quarter, 1961, the Court varied the State basic wages after considering the official statement supplied by the State Government Statistician, except in February, 1959, and February, 1960, when no change was made. Basic wage rates remained unchanged from 30th October, 1961, to 22nd April, 1963.

In a decision issued on 30th January, 1960, the Court, acting in recognition of an agreement between representatives of unions and employers, increased the basic wage for adult females from 65 per cent. to 75 per cent. of the adult male rate. The increased rates were payable from the beginning of the first pay-period commencing on or after this date. As in December, 1951, female margins were to be reduced or deleted to offset the increase in the female basic wage.

The rates payable in the metropolitan area as from 22nd April, 1963, were £15 0s. 3d. for adult males and £11 5s. 2d. for adult females.

(vi) *Tasmania.* A State basic wage is not declared in Tasmania. Under the *Wages Board Act* 1920-1961, Wages Boards are constituted for a number of industries, from representatives of employers and employees and an independent chairman (who is common to all Wages Boards), with power to determine the minimum rates of wage payable in each industry. Until February, 1956, these Boards generally adopted the basic wages of the Commonwealth Court of Conciliation and Arbitration in determining the rates of wage to be paid.

Wages Boards have power to adjust their wage rates in accordance with variations in the cost of living as indicated by retail price index numbers published by the Commonwealth Statistician. When the Commonwealth Court discontinued the system of automatic adjustments of the basic wage in September, 1953, the Chairman of the Wages Boards stated he was of the opinion that automatic adjustment clauses should be deleted from all Wages Boards determinations. Before Wages Boards met to consider this matter, the wage rates for all determinations were automatically adjusted upwards from the beginning of the first pay-period commencing in November. By early December, 1953, all Wages Boards had met and deleted the automatic adjustment clause from determinations and cancelled the adjustment increases payable from November.

Automatic quarterly adjustments in accordance with movements in retail price index numbers were re-introduced by Wages Boards in February, 1956, and restored the basic wage to the level it would have reached if quarterly adjustments had not been discontinued in 1953. A further basic wage increase was payable from the first pay-period in May, 1956.

Upon application by the Employers' Federation of Tasmania, a compulsory conference of employer and employee representatives was held on 22nd and 25th June, 1956, to consider the adoption of Commonwealth basic wages and the deletion of automatic quarterly adjustment provisions. At the conclusion of the conference, the Chairman of the Wages Boards stated he was of the opinion that the adjustments should be suspended for a period in an endeavour to achieve some measure of stability. However, he pointed out that any Wages Board was competent to adopt by agreement between the representatives of employers and employees or majority decision, the Commonwealth Court's basic wage or any other method of fixing the basic wage.

The majority of Wages Boards suspended automatic quarterly adjustments after the August, 1956, adjustment, and wage rates remained unchanged until July, 1959, when the Commonwealth rates were adopted. Following the decision of the Commonwealth Conciliation and Arbitration Commission in July, 1961, to increase the basic wage, Wages Boards met during July, and incorporated the new rates in their determinations. The rates for Hobart then became £14 14s. for adult males and £11 0s. 6d. for adult females. These rates were still operative in May, 1963. During January, 1961, Wages Boards adopted the basic wage for Hobart as the uniform rate applicable throughout the State.

A table was published in the Appendix to *Labour Report* No. 49, 1961, showing basic wage rates for adult males and females generally adopted in Hobart for the period February, 1956, to July, 1961.

During 1962, a number of Wages Boards met and varied determinations by making provision for the automatic adjustment of the basic wage to conform to any change in the basic wage determined from time to time in awards of the Commonwealth Conciliation and Arbitration Commission.

(vii) *State Basic Wage Rates.* The "basic" wage rates of State industrial tribunals, operative in May, 1962, and May, 1963, are summarized in the following table.

STATE BASIC WAGES: WEEKLY RATES

State	May, 1962				May, 1963					
	Date of operation (a)	Adult males		Adult females	Date of operation (a)	Adult males		Adult females		
		s.	d.			s.	d.			
New South Wales .. ..	Feb., 1962	300	0	225	0	302	0	226	6	
Victoria(b) .. ..	(c)	287	0	215	0	287	0	215	0	
Queensland—										
Southern Division—										
Eastern District, including										
Brisbane .. ..	29.5.61	284	0	213	0	6.5.63	286	0	214	6
Western District .. ..	29.5.61	294	6	221	0	6.5.63	296	6	222	6
Mackay Division .. ..	29.5.61	293	0	219	9	6.5.63	295	0	221	3
Northern Division—										
Eastern District .. ..	29.5.61	294	6	221	0	6.5.63	296	6	222	6
Western District .. ..	29.5.61	316	6	237	6	6.5.63	318	6	239	0
South Australia(d) .. ..	10.7.61	283	0	212	0	10.7.61	283	0	212	0
Western Australia—										
Metropolitan Area .. ..	30.10.61	298	9	224	1	22.4.63	300	3	225	2
South-West Land Division .. ..	30.10.61	297	3	222	11	22.4.63	298	8	224	0
Goldfields and other areas .. ..	30.10.61	291	6	218	8	22.4.63	292	11	219	8
Tasmania(b) .. ..	July, 1961(e)	294	0	220	6	July, 1961(e)	294	0	220	6

(a) Where dates are not quoted, wage rates operate from the beginning of the first pay-period commencing in the month shown. (b) No basic wage declared. Rates shown are those adopted by most Wages Boards.

(c) During July and August, 1961, Wages Boards adopted the Commonwealth rate.

(d) The "living wage" declared for the metropolitan area is also adopted for country areas, except at Whyalla and nearby areas, where a loading of 5s. a week for adult males is generally payable.

(e) Most Wages Boards adopted the Commonwealth rate from July, 1961.

Tables showing State basic wage rates for a long period of years are contained in the Appendix to *Labour Report* No. 49, 1961.

## § 6. Wage Margins

1. **General.**—Wage margins have been defined as “minimum amounts awarded above the basic wage to particular classifications of employees for the features attaching to their work which justify payments above the basic wage, whether those features are the skill or experience required for the performance of that work, its particularly laborious nature, or the disabilities attached to its performance”.\*

Marginal rates of wage are determined by Commonwealth and State industrial tribunals. In the Commonwealth jurisdiction, prior to 1954, the Commonwealth Court of Conciliation and Arbitration had not made any general determination in respect of wage margins, but general principles of marginal rate fixation had been enunciated by the Court in the *Engineers Case of 1924*, the *Merchant Service Guild Case of 1942* and the *Printing Trades Case of 1947*. Major determinations affecting margins were made in 1954, 1959 and 1963. The decisions of the Commonwealth Court and later the Commonwealth Conciliation and Arbitration Commission have generally been followed by State industrial tribunals in the determination of margins in State awards.

A summary of the 1954 and 1959 Margins Cases is given in the following paragraphs. A summary of the 1963 case will be found in the Appendix.

2. **Metal Trades Case, 1954.**—Employee organizations parties to the Metal Trades Award, 1952, filed applications during 1953 for increased margins for all workers covered by this award. The applications came on for hearing before J. M. Galvin C.C., who decided that they raised matters of such importance that, in the public interest, they should be dealt with by the Commonwealth Court of Conciliation and Arbitration. On 16th September and 6th October, 1953, the Conciliation Commissioner, pursuant to section 14A of the *Conciliation and Arbitration Act*, referred these applications to the Court.

The actual claims of the trade unions were that the marginal rate of 52s. a week payable to a fitter in the metal trades should be increased to 80s. a week (86s. for certain electrical trades), with proportionate increases for other award occupations. The margins then current, with a few exceptions, had been in existence since 1947. The employees' claims were in the nature of a test case to determine the attitude of the Court to other applications for increased margins.

Employer organizations respondent to the Metal Trades Award counter-claimed that existing margins for skilled tradesmen should remain unaltered, while those paid to partly skilled or unskilled workers should be reduced.

The Court decided to take the Commissioner's two references together, and the matter came on for hearing before the Full Arbitration Court (Kelly C.J., Kirby, Dunphy and Morgan JJ.) in Melbourne on 13th October, 1953.

In a judgment delivered on 25th February, 1954, the Court held that a *prima facie* case had been made for a re-assessment of margins but that the economic situation at that time, particularly in regard to the level of costs, did not permit of such a comprehensive review. The Court decided that, to avoid the creation of new disputes, to save expense and to obviate procedural difficulties, it would not reject the claims but adjourn them until 9th November, 1954.

On 25th and 26th August, 1954, summonses were filed by the employees' organizations for orders that proceedings in this case be brought forward, and the hearing was resumed on 5th October, 1954.

In a judgment delivered on 5th November, 1954†, the Court made an order re-assessing the marginal structure in the Metal Trades Award by, in general, raising the current amount of the margin to two and a half times the amount of the margin that had been current in 1937. However, in cases in which the result of that calculation produced an amount less than the existing margin, the existing margin was to remain unaltered. In effect, this decision increased the margins of a fitter from 52s. a week to 75s. a week, increased similarly margins of other skilled occupations, and made no increase in margins of what may generally be described as the unskilled or only slightly skilled occupations under the Metal Trades Award.

At the end of its judgment, the Court stated that, while its decision in this case related immediately to one particular industry, it was expected to afford general guidance to all authorities operating under the *Conciliation and Arbitration Act*, or under other legislation which provided for tribunals having power to make references, or being subject to appeal, to the Court, where the wage or salary may properly be regarded as containing a margin.

\* *Commonwealth Arbitration Reports*, Vol. 80, p. 24.

† *Ibid.*, p. 3.

The Court added observations for the guidance of these and of other tribunals "which may regard decisions of this Court as of persuasive authority". Further details were published in *Labour Report* No. 46, 1958, pages 101-8.

3. *Margins Cases, 1959.*—On 25th August, 1959, the Commonwealth Conciliation and Arbitration Commission began considering a number of applications for changes in margins referred to it from the appropriate Commissioner. Applications had been made by various employee organizations for increased margins in Parts I. and II. of the Metal Trades Award, Part II. of the Aircraft Industry Award, the Bank Officials' Award and the Gold and Metalliferous Mining Award. An application by employers sought to reduce marginal rates in the Metal Trades Award. The Commission decided to hear all these matters together, permitting the applicant unions in respect of Part II. of the Metal Trades and Aircraft Industry Awards and the Bank Officials' Award to ask first for an interim increase. A summary of the principal decisions and reasons for judgment of the Commission is given in the following paragraphs. Further details, including extracts from the judgment, were published in Official Year Book No. 47, pages 455-9.

*Metal Trades Award, Part I.* The employee organizations claimed an increase in the margin for the fitter, as set out in the Metal Trades Award, 1952 (i.e. the award as it existed prior to the Metal Trades Case, 1954—see para. 2, page 507), from 52s. to 134s. a week and an increase of 157 per cent. in the margins for other classifications. The employers counter-claimed for a reduction in margins of 15s. a week.

The Attorney-General of the Commonwealth intervened, and not only submitted statistical material and an analysis of the economic situation, but also assisted the Commission with an exposition of various factors proper to be taken into account in the fixation of margins. In particular, the Commonwealth emphasized the desirability of flexibility in the workings of the arbitration system.

Counsel for the unions put broadly a case that in the proper fixation of margins the basic criteria were the market value at the time of the fixation of the wage and the economic capacity of the economy to pay the wages claimed, and he alleged that the 1954 Metal Trades decision had departed from these principles. He produced to the Commission material to demonstrate that the economic situation would justify the increases asked for. He also submitted that the true relativities in the Metal Trades Award should be those created by a combination of the 1947 Full Court decision and the second variation order made in 1947 by G. A. Mooney, C.C.\*

The employers adopted the view that no case had been made out for any increase and that there should be wage reductions. They also supplied the Commission with economic material in support of their case that there was no capacity in the community to sustain increased margins, and alternatively that any increased economic capacity which may have occurred since 1954 had been exhausted by basic wage fixations. As to relativities, the employers submitted that the 1954 decision should be adhered to and should be carried to its logical conclusion in so far as the lower paid classifications were concerned.

In its judgment, delivered on 27th November, 1959, the Commission rejected the employers' application to reduce margins, and made an order re-assessing the marginal structure in the Metal Trades Award by increasing the existing margins by 28 per cent., the amount of the increase being taken to the nearest 6d. The new margins applied from the beginning of the first full pay-period commencing in December, 1959. The effect of this decision was to increase the margin of the fitter from 75s. to 96s. a week and that for the process worker from 22s. to 28s.

The Commission stated that, not having before it the question of work values, and having decided not to alter the 1954 relativities, the increases had been expressed as a percentage of current margins, but this was not to be taken as an endorsement of that method of fixing margins.

In discussing the principles of marginal fixation, the Commission stated that there was no real reason why a margin should be expressed as a percentage of the basic wage, and that it would be unwise to express any margin in that way. On the related question of whether margins should be increased merely because of the decreasing power of money since last fixed, the Commissioner's view was that, although the automatic or mathematical approach should be rejected, some account must be taken, whenever a margin is under review, of the amount at which the margin was originally fixed and of any decrease in the purchasing power of money since the time of fixation.

\* *Commonwealth Arbitration Reports*, Vol. 59, p. 1272

On the question of economic capacity the Commission said that prior to 1947 it had been the practice, in the metal trades industry at least, to consider the economic situation of the industry itself, but in 1954 the Court considered only the capacity of industry generally. However, the Commission pointed out that in many cases in the past, margins had been fixed without consideration of capacity, and it could see no reason why in appropriate circumstances that practice should not continue.

The submission by the employers that, even if there had been capacity to pay increased wages, that capacity had been exhausted by basic wage decisions in recent years, was rejected by the Commission.

The unions sought to have restored the relativities within the marginal structure of the Metal Trades Award which existed prior to the 1954 decision. The employers not only relied on the relativities created in 1937 and confirmed in 1954, except as to the lower paid classifications, but also asked the Commission to take the 1954 relativities to their logical conclusion in its decision in this matter as far as those classifications were concerned.

The Commission said that, in origin at least, relativities in margins were merely an expression of relative work values and there was no evidence of such values before the Commission. In the circumstances, the Commission was not prepared to accede either to the unions' submissions or to the employers' submission in this regard, and it accepted the relativities established by the 1954 decision except to the extent necessary to round some of the figures off. The question of relativities in margins in the Metal Trades Award, based on work value, thus remained open.

During the proceedings, the unions presented some evidence as to over-award payments in the industry. The Commission referred to the question whether it should pay regard to payments obtained by duress, and decided that the means by which over-award payments of sufficient duration were obtained was irrelevant when considering economic capacity. The mere fact that such amounts were being paid and had been paid over a considerable period was sufficient to demonstrate capacity.

The Commission could not arrive at any figure which could be said to be a reliable average over-award payment for any classification. The most it could say was that in the Metal Trades industry there were over-award payments of varying amounts in quite a number of establishments, and it had taken this factor, indefinite though it was, into account in arriving at its decision.

In reviewing the economic situation, the Commission considered the current position in the light of information which had become available since the 1959 Basic Wage Judgment. After considering various indicators of the state of the economy, the Commission discussed the problems of inflation and the maintenance of economic stability. The Commission said that it had looked at the increases which it proposed to grant in the light of the submissions about economic stability and it did not consider that such increases were so likely to affect that stability that the economy would be adversely affected. If marginal increases could not be granted in times of economic prosperity, it was difficult to imagine when they could be granted.

Summing up, the Commission stated:—"We have considered, with the qualifications already mentioned in this Judgment, the decrease in the purchasing power of money which has occurred since the 1954 marginal fixation, we have assessed as well as we are able to the increased capacity which has occurred in the Australian economy since that time and the fact that productivity has played its part in that increase of strength, and we have considered the Basic Wage decisions and appraisals of the economy by the Court and the Commission since 1954. In the result, we have thought it proper to increase margins in the Metal Trades industry in the particular circumstances which confront us by an amount which exceeds the loss in purchasing power of the 1954 margins, which excess we consider has been earned by the contribution of the employees to productivity increases and made possible by the additional strength of the national economy."\*

The Commission went on to say:—"This decision is based on the material placed before us and our general industrial knowledge which, in view of our functions under the Act, we think it proper to use. Both that material and that knowledge relate to the Metal Trades industry and to the economy generally. Our decision, however, relates only to the Metal Trades Award. We realize that on occasions in the past, margins fixed in the Metal Trades Award, and in particular the margin of the fitter, have been used as standards

\* *Commonwealth Arbitration Reports*, Vol. 92, p. 793.



for other awards. The use of the increases which we have granted as a guide in other disputes will be a matter for the parties as far as conciliation is concerned and, if arbitration is necessary, for this Commission however constituted."

*Gold and Metalliferous Mining Award.* Judgment was also delivered on 27th November, 1959, in connexion with the application for variation of margins in this award.\* The margin for the miner was increased from 30s. to 42s. 6d. a week from the beginning of the first full pay-period commencing in December, 1959. Marginal claims for other classifications were referred back to the appropriate Commissioner for consideration. Subsequently, the parties to the award agreed that margins for all other classifications should be increased in the same proportion as the margin for the miner (i.e. 41.7 per cent.). The Commissioner varied the award accordingly.

*Metal Trades Award, Part II., and Aircraft Industry Award, Part II.* On 11th December, 1959, the Commission delivered a judgment granting a 20 per cent. interim increase in margins to graduate and diplomate engineers and scientists, payable as from the beginning of the first full pay-period commencing in December, 1959.

*Bank Officials' Award.* On 11th December, 1959, a 20 per cent. interim increase in margins was granted to officers in the 10th to 18th year of service inclusive and to accountants and managers, payable retrospectively as from 11th June, 1959. Interim increases were not awarded to more junior officers, nor to females. Subsequently the parties to the Bank Officials' Award met before a single Commissioner, and a consent award was made giving final marginal increases to adult males and adult females and making adjustments to junior rates of pay.

4. *Margins Cases, 1963.*—A summary of the judgment delivered in these cases will be found in the Appendix.

### § 7. Leave

1. *Annual Leave.*—In the judgment given by the Commonwealth Court of Conciliation and Arbitration in the Commercial Printing Case of 1936, Dethridge *C.J.*, in granting one week's annual leave with full pay to employees in the industry, said:—"This Court has frequently been asked to award annual leave on full pay but has hitherto not done so except in cases where employees have to work on Sunday, or suffer some other deprivation by reason of isolation or other cause, or in cases where such leave has become the custom generally by the practice of most of the parties concerned."† This judgment has usually been regarded as the first statement of the principles involved in deciding whether or not annual leave should be awarded.

In 1940, Beeby *C.J.*, awarded annual leave of one week to the manufacturing section of the metal trades industry, and in the same year O'Mara *J.* extended leave throughout the industry, with the exception of that section engaged in the servicing of motor vehicles.

Annual leave in the Commonwealth jurisdiction was introduced over a period of time, industry by industry, if the Judge responsible for the industry considered it proper.

The question of annual leave was again before the Court in 1945.‡ In that case applications had been made seeking variations of awards to prescribe an extension of annual leave from a period of seven days to fourteen days. The Court in its judgment set out what it considered to be the principles to be applied in all applications for an extension of the annual leave period to fourteen days. The question of altering any particular award to prescribe for two weeks' annual leave was left to the discretion of the single Judge who heard the application.

Further inquiries into annual leave were conducted by the Commonwealth Conciliation and Arbitration Commission in 1960, 1962 and 1963. A summary of the 1960 and 1962 inquiries is given in paras. 2 and 3 below. A summary of the 1963 inquiry will be found in the Appendix.

Employees in New South Wales in private industry, other than those covered by Federal awards, were granted three weeks' annual leave by an amendment to the Annual Holidays Act, passed in 1958. Generally, employees of government authorities (Commonwealth, State, Local and Semi-government), with the exception of State and Local Government employees in Western Australia, are entitled to three weeks' annual leave, as are also many salaried employees and wage earners in certain industries. The majority of the remaining employees in Australia receive two weeks' annual leave.

\* *Commonwealth Arbitration Report*, Vol. 92, p. 796.  
p. 595.

† 36 *C.A.R.*, p. 738.

‡ 55 *C.A.R.*,

2. **Three Weeks' Annual Leave Inquiry, 1960.**—Unions respondent to the Metal Trades Award applied to the Commonwealth Conciliation and Arbitration Commission on 18th July, 1960, to vary the Award to provide three weeks' paid annual leave instead of two weeks. In a judgment issued by the Commission, constituted by Kirby C.J. (President), Moore J. (Deputy President) and E. A. Chambers (Senior Commissioner), on 14th December, 1960, the application was refused.\*

At the beginning of proceedings, it had been stated by counsel for the unions that the matter was regarded as providing a standard of three weeks' annual leave for all Federal awards, and it was treated accordingly by the Commission. The application was opposed by employers, the State of Victoria and the Electricity Trust of South Australia. The State of Tasmania supported the application. The Commonwealth Government and the State of Queensland neither supported nor opposed the application, although the Commonwealth tendered statistical and economic information for the benefit of the Commission and the parties. The Commission stated that it did not disagree with the concept of increased leisure, nor did it think that, at that time, leisure was at a maximum. The issue for decision was whether that was the time to increase it for employees under Federal awards.

Counsel for the unions contended that serious anomalies existed because awards of the Commission lagged behind standards of annual leisure increasingly adopted in other jurisdictions, notably in New South Wales, where the *Annual Holidays Act* of 1958 had, with effect from the beginning of 1959, extended three weeks' annual leave to employees covered by that legislation. He held that judgments of the previously existing Arbitration Court had shown an eagerness to avoid industrial anomalies, and that the onus lay on employers to show a lack of economic capacity once anomalies as to leisure were established.

Evidence was submitted on the incidence of three weeks' annual leave among members of the Federated Ironworkers' Association of Australia, and similar material was supplied by other unions. Although precise information was not available, it was claimed that 40 to 50 per cent. of all workers were in receipt of three weeks' annual leave. Analysis of this information showed that employees of government and government instrumentalities and employees in the State of New South Wales were principally responsible for this high figure.

Thus anomalies arose mainly because of two factors: the operation of the *Annual Holidays Act* 1944–1958 in New South Wales, and the fact that generally employees of Governments and Local Governments and government instrumentalities throughout the Commonwealth were granted three weeks' annual leave. The Commission considered it obvious that dissatisfaction would exist in an establishment covered by both Federal and New South Wales State awards if these awards provided for their respective groups of employees annual holidays of different duration. Although it was of significance to the Commission that dissatisfaction would exist in New South Wales among Federal award workers receiving two weeks' annual leave, the Commission was a Federal body with responsibilities throughout the Commonwealth, and, although it could not ignore the New South Wales legislation, it did not feel impelled, in using its powers, to follow it.

The amount of annual leave enjoyed by public servants had been different for many years, and at present few employees of the Commonwealth either in the public service or elsewhere received less than three weeks' annual leave. However, employment in the public service had never been regarded as setting standards in industry generally. The Commission considered that, since in a federal system differences almost certainly will exist through the use by State legislatures and industrial tribunals of their industrial powers, too much emphasis could be placed on anomalies. This attitude was consistent with that section of the *Conciliation and Arbitration Act* which enjoined the Commission "so far as possible, and so far as the Commission thinks proper" to provide uniformity throughout an industry in relation to hours of work, holidays and general conditions, upon which counsel for the unions had relied.

In considering the history of annual leave, various cases involving decisions by the Arbitration Court had been cited. In the forty hours case, upon which much reliance had been placed by counsel for the unions, the Court was pressed by the Commonwealth Government and the Governments of New South Wales, Victoria, Queensland and Tasmania

to award a forty hour week, and that fact had weighed heavily. In the present case, only the Tasmanian Government supported the application, and the Governments of some other States had not appeared. Assuming that the attitudes of Governments were a matter of significance in this case, those attitudes expressed did not help either the applicants or the employers, and in particular the Commonwealth Government's attitude could not be said to be in support of the application as was contended by the unions, any more than it could be said to have opposed the application.

The Commission said that this review of cases was of little assistance to it. It rejected the submission that from them could be found a principle that once desirability for increased leisure was established, the onus moves to employers to demonstrate lack of capacity to pay for this increased leisure. In these cases, principles for general application had not been laid down.

In dealing with the state of the economy, counsel for the unions stated that productivity had increased by about 2 per cent. per annum between 1946-47 and 1959-60, that wages had by no means absorbed this productivity increase, and that in New South Wales the universal grant of three weeks' annual leave had not adversely affected the economy of that State.

Evidence given on behalf of employers, covering the sheep and cattle industries, had provided the view that, if the application succeeded, direct and indirect labour costs would increase, thereby producing an adverse effect on the industries, which would be harmful to the whole economy. Counsel for the employers submitted that at the end of September there was a strong demand for labour. Surveys of overtime taken from time to time in 1960 disclosed that in about 2,400 factories covered, the average weekly hours of overtime per person working overtime were 7.8 and per employee in the survey 2.7. The probability was that any extension in annual leave would result in more overtime being worked rather than more leisure being achieved by employees. In addition, the need in future to find employment for school leavers increasing in numbers with the expansion of population would require an expansion in the economy. This could only be assured by selling more exports to obtain the imports needed in such an expansion. Any extension of annual leave would result in additional costs which would adversely affect export earnings.

He also referred to the position of the balance of international payments and pointed out that this was the third successive year in which reserves had fallen, and that this fall would continue in the current year. Terms of trade had become progressively adverse over the previous ten years, and although they showed some improvement in 1959-60, the adverse trend was resumed in the first quarter of 1960-61.

Material from the International Labour Office was presented, showing the position in all industrial countries as far as yearly hours of work were concerned. The normal hours for an employee under the Metal Trades Award were 1,928 as compared with 1,984 in the United States of America and 2,152 in the United Kingdom. With regard to annual leave, most industrial countries had two weeks or less; the only relevant countries having more were the Scandinavian countries and France.

The Commission stated that, against the background of the attitudes and submissions discussed, its decision was that the application should be rejected. It repeated its belief that the existing amount of leisure was not at a maximum, but it also believed that the time was not appropriate for an increase in paid annual leave.

The Commission considered that Gross National Product was not suitable as a measure of productivity as it is itself increased by wage increases. It was inappropriate to use, as a basis to increase wages, figures which were themselves increased by the very decision made.

Two economic factors considered most significant were the export-import position and the state of employment. Imports were at a higher level than for some time and export earnings appeared to be decreasing. The wool industry was a major factor in the exports position, and in the light of increasing imports, the combination of lower prices for, and lower production of, wool presented Australia with a difficult problem. The industry was suffering a price-cost squeeze which the Commission hesitated to aggravate. While it appreciated

that an increase in holidays would not of itself increase prices, experience showed that, even if the application were granted for secondary industries alone, at least some of the resultant increased costs would be passed on in increased prices. In addition, international reserves were likely to fall some £200 million and this emphasized the need for increased production making more difficult a decision to increase leisure.

At a time when there was a shortage of skilled labour and such extensive use of overtime, it appeared wrong to attempt to increase periods of paid leisure for those employed under Federal awards. The ideal background to the granting of additional paid leave would be that there was enough labour to go round. It appeared that an attempt to increase holidays by 50 per cent. would result in a situation in which it was agreed that production should be maintained or increased, not in increased leisure, but only in increased overtime and thus increased total pay envelopes. It was not the function of the Commission to grant an application for increased leisure when it considered that it would accomplish no such purpose but would merely provide additional pay.

In conclusion the Commission stated:—"We accordingly dismiss this application because of the present economic situation. In doing so we would again repeat what we have said earlier in this judgment that we do not consider that employees under Federal awards have yet achieved all the leisure which they should achieve. We have done no more than decide that the present is not an appropriate time in which to award an extra week's paid leave."\*

The Commission emphasized that its decision to dismiss the application was not intended to apply to a situation where, for special reasons related to a particular award or industry, it may consider an amount of annual leave greater than two weeks to be justified.

**3. Three Weeks' Annual Leave Inquiry, 1962.**—On 10th April, 1962, the Commonwealth Conciliation and Arbitration Commission, constituted by Kirby C.J. (President), Moore J. (Deputy President) and D. G. Apsey (Commissioner) commenced hearing an application by unions respondent to the Metal Trades Award for variation of the award to provide three weeks' paid annual leave instead of two weeks.

Although the application was made in respect of the Metal Trades Award only, counsel for the unions made it clear that they wished the claim to be regarded as a test case which, if granted, would involve the inclusion in federal awards generally of the basic standard of three weeks' annual leave. The application was opposed by employers, the State of Victoria and the Electricity Trust of South Australia. New South Wales and Tasmania supported the application. The Commonwealth Government and the State of Queensland neither supported nor opposed the application, although the Commonwealth intervened in the public interest and made submissions on the state of the economy, as well as providing economic and statistical information for the benefit of the Commission and the parties.

The hearing was concluded on 2nd May, 1962, and on 30th May the Commission made the following announcement.

"We have given careful consideration to the submissions which have been made to us in this case. The applicant unions have asked that we consider the claim a general one, the result to be applied to Federal awards generally. This must result in greater caution on our part in deciding whether or not the application should succeed. Our present intention is that an increase to three weeks' annual leave generally in secondary industry, subject to special cases, should be granted as soon as we are satisfied that the economy is in a position to cope with the effects of such an increase. However, there are two aspects of the economic arguments about which we are troubled and about which we consider it too early to make any firm decision. These are, firstly, whether our internal economy has sufficiently recovered from the recession of late 1961 and, if so, what is the likely rate of its recovery in the future and, secondly, the effect on Australia of success or failure of the application of the United Kingdom to enter the European Common Market. There have been developments in relation to the latter question since the hearing which both emphasise its importance and the lack of accurate information as to what is going to happen and the short and long term effect on Australia's economy.

So that we may be able better to assess these matters we have decided to adjourn these proceedings until a date in February or March next which will be announced later when the parties and interveners will be able to make such further submissions on these two matters as they may desire."

A brief summary of the case is given in the following paragraphs.

Counsel for the unions submitted that about half of the Australian work force was already entitled to three weeks' leave or more, and that the Commission was being asked to settle a genuine industrial dispute arising from the disparity between the leave granted to different sections of the work force. He referred to the judgment in the 1960 Annual Leave Inquiry, in which the Commission had stated that its decision to refuse the application had been influenced by the export-import position and the state of employment, and submitted that there had been sufficient improvement in these two factors to justify the granting of the application, particularly as the Commission had in the 1960 case conceded that two weeks should not be regarded as the ultimate in paid annual leave.

Counsel then submitted evidence to show that three weeks' annual leave, which had been granted by legislation in New South Wales in 1958, had not had any adverse effects on the economy of that State. Also, in the 17 years since 1945, when annual leave was extended to two weeks, the national economy had developed in a way which would permit the granting of an extra week's leave with much more safety than had been possible in 1945, at the end of the war.

Counsel for the employers, in opposing the application, said that since the previous rejection of the unions' claim in 1960, Australia had undergone a major recession. No new arguments had been advanced by the unions in support of their claim and it should therefore again be rejected. Counsel submitted that even on the grounds of social justice the claim should be rejected because Australian workers enjoyed shorter annual hours of work than those of any other country in the world. In addition, an examination of the relation of average weekly earnings to productivity showed that they had already received the fruits of all productivity increases.

The balance of payments situation, though improved, had been achieved only through drastic government action and in fact looked satisfactory only in comparison with that of the previous year. As to employment, there was still a shortage of skilled labour, which would be aggravated by the granting of increased leave.

He submitted that the claim should not be treated as a test case, because it was being argued not only on general economic issues but also in relation to specific problems in the metal trades. No party to any other award should be inhibited in any way from arguing the particular circumstances of other industries.

**4. Three Weeks' Annual Leave Inquiry, 1963.**—A summary of the judgment delivered by the Commonwealth Conciliation and Arbitration Commission will be found in the Appendix.

**5. Long Service Leave.**—(i) *General.* Paid long service leave, i.e. leave granted to workers who remain with the one employer over an extended period of time, has been included in the provisions of industrial legislation in the several States. A brief summary is given in the following paragraphs. In all cases the transfer of ownership of a business does not constitute a break in continuity of service with the same employer.

(ii) *New South Wales.* Long service leave was first introduced for the majority of workers by the *Industrial Arbitration Act, 1951*, which provided such leave for workers under State awards. This Act was replaced by the *Long Service Leave Act, 1955*, which extended the benefits to any worker within the State. An amendment to the Act in 1963 provided for three months' long service leave for fifteen years' continuous service with the same employer.

(iii) *Victoria.* The *Factories and Shops (Long Service Leave) Act* 1953 first provided for long service leave for workers in Victoria, the provisions of this Act being subsequently incorporated in the *Labour and Industry Act*. Leave provided for is thirteen weeks for twenty years' continuous service with the same employer. Contributions by employers to retirement schemes can be taken into consideration in dealing with exemptions from the Act.

(iv) *Queensland.* In 1952, the *Industrial Conciliation and Arbitration Act* was amended to include long service leave provisions for employees within the jurisdiction of the Industrial Court, and the Act was amended again in 1955 to extend these provisions to any employee in respect of whose employment there was not in force an award or industrial agreement under the Act and to seasonal workers in sugar mills and meat works. Leave provided for is thirteen weeks for twenty years' continuous service with the same employer.

(v) *South Australia.* The *Long Service Leave Act*, which was passed in 1957, exempts a large number of industrial agreements, with wide industrial coverage, specifying long service leave for employees. For those covered by the Act, leave provided for is seven days in the eighth and in each subsequent year of continuous service. Contributions by employers to retirement schemes can be taken into consideration in dealing with exemptions under the Act.

(vi) *Western Australia.* The *Long Service Leave Act* was passed in 1958, but it does not apply to employees whose conditions of work are regulated under the *Western Australian Industrial Arbitration Act*. The Court of Arbitration of Western Australia, in an order dated 1st April, 1958, incorporated in most of the awards and agreements within its jurisdiction provisions similar to those in the *Long Service Leave Act*. Leave provided for is thirteen weeks for twenty years' continuous service with the same employer. Contributions by employers to retirement schemes can be taken into consideration in dealing with exemptions from the Act.

A general inquiry into long service leave, public holidays, annual leave and hours was held by the Court in 1961. In its judgment, delivered on 5th May, 1961,\* it disallowed the major claims by the parties relating to long service leave, but deleted sub-clause (4.) of paragraph (f) of the 1958 Order. (Sub-clause (4.) entitled an employer to offset any payment in respect of long service leave under the Order against any payment by him to any long service leave scheme, superannuation scheme, pension scheme, retiring allowance scheme, provident fund or the like or under any combination thereof operative at 1st April, 1958.)

The Court rejected claims by employers that (a) an employee who illegally severed his contract of employment should forfeit his right to *pro rata* leave, (b) voluntary retirement by an employee should never be deemed to be a pressing necessity (the Act provides that an employee with at least 10 years' but less than 15 years' continuous service who terminates his employment on account of domestic or other pressing necessity may be entitled to *pro rata* long service leave), and that (c) the conditions under which an employer may obtain exemption from the long service leave provisions should be extended.

The Court also rejected claims by trade unions that (a) any period during which the service of the worker was interrupted by service under the *National Security (Manpower) Act* or the *Re-establishment and Employment Act* should be counted as service, (b) any termination of employment should not break the continuity of service if the employer re-engaged the worker within 14 days, (c) the qualifying period for *pro rata* leave should be reduced, (d) a worker with at least ten years' service who retired on account of reaching the age of 65 years or over should be entitled to *pro rata* leave, and that (e) annual leave and public holidays falling during the period of a worker's long service leave should be excluded from the period of that long service leave.

(vii) *Tasmania.* The *Long Service Leave Act*, which was passed in 1956, provides for thirteen weeks leave for twenty years' continuous service with the same employer. Contributions by employers to retirement schemes can be taken into consideration in dealing with exemptions from the Act. Provisions for long service leave for casual waterside workers are contained in the *Stevedoring Industry Long Service Leave Act* 1960. This Act has been superseded by the (Commonwealth) *Stevedoring Industry Act* 1961 (see below).

\* *Western Australia Industrial Gazette*, Vol. 41, p. 355.

(viii) *Commonwealth*. The applicability of long service leave provisions under State law to workers under federal awards has been tested before the High Court and the Privy Council and such provisions have been held to be valid.

The Commonwealth Conciliation and Arbitration Commission may include provisions for long service leave in its awards, and, if it does so, they will take precedence over State law in accordance with the terms of such provisions expressed in individual awards. However, the Commission has generally declined to include such provisions, except in the Northern Territory and Australian Capital Territory (*see below*). The Commission's position was set out in its decision, issued on 16th September, 1959, regarding disputes on the inclusion, in the Graphic Arts (Interim) Award 1957, of provisions for long service leave. It stated that it should refrain, until further order, from determining the disputes so far as they concerned long service leave, and that if, in future, the Commission decided that long service leave on a national basis was desirable, it was open to proceed to the making of an award on the matter.

Long service leave codes for employees in the Northern Territory and the Australian Capital Territory were prescribed on 4th December, 1961, by the Commonwealth Conciliation and Arbitration Commission in Presidential Session. The unions submitted that the Commission should refrain from exercising its jurisdiction and emphasized that it was the considered policy of the trade union movement "that long service leave should come from legislative action and not from prescription by industrial authorities." However, the Commission rejected the submission and awarded leave in each case in terms of the employers' applications, which were, in general, that employees should be granted three months' long service leave after 20 years service with one employer, even if part of this service was outside the Territory. In addition, the Australian Capital Territory code prescribed that employees presently employed might "go back for a period of 25 years in regard to the calculation of their present or future entitlement of long service leave."

The *Stevedoring Industry Act* 1961, which came into operation on 6th June, 1961, included provisions granting long service leave to persons who had been continuously registered as waterside workers under Commonwealth stevedoring legislation. Leave provided for is thirteen weeks after the completion of twenty years' qualifying service, and six and a half weeks for each subsequent ten years' qualifying service.

## EMPLOYMENT AND UNEMPLOYMENT

### § 1. Employment

1. **General.**—In previous issues of the Official Year Book tables were published showing particulars of total occupied persons in each State and Territory and in rural and non-rural industry at various Population Census dates. Although the figures were derived from census results, they differed, because of certain adjustments, from recorded census figures.

Information necessary to enable corresponding particulars of total occupied persons to be calculated for June, 1961, is not yet available, and the tables have therefore been omitted from this issue. However, recorded Census figures for June, 1961, are being issued in a series of mimeographed and printed publications which show, for each State and Territory, particulars of the industry and occupational status of persons in the work force. This information is given in summarized form in Chapter IX. Population, of this Year Book.

2. **Wage and Salary Earners in Civilian Employment.**—Monthly estimates of the number of wage and salary earners in civilian employment (excluding employees in rural industry and private domestics) are obtained from three main sources, namely, (a) monthly data as to persons employed in factories as shown at annual Factory Censuses; (b) current monthly returns from government bodies; and (c) current Pay-roll Tax returns (generally monthly). There are also some other direct records of monthly employment (e.g. for hospitals). Data from these sources are supplemented by estimates of the number of wage and salary earners not covered by the foregoing collections.

The estimates of wage and salary earners are compiled on an establishment or enterprise basis, and therefore do not cover exactly the same area of industry as do the relevant industry tabulations of general Population Censuses, which are based on the returns of individual employees. However, results of the 1961 Census that are at present available indicate that revision of the employment estimates is necessary. The programme of revision had not been completed when this chapter was sent for press, and the tables showing wage and salary earners in civilian employment that were previously included in this section have therefore been omitted. Revised figures will be found in the Appendix.

## § 2. Unemployment

The total number of persons "unemployed" has been recorded only at the dates of the various Censuses. At Censuses prior to 1947, persons who were "unemployed" were requested to furnish particulars of the cause and duration of unemployment, but from 1947 onwards the inquiry was broadened to include all persons (usually engaged in industry, business, trade, profession or service) who were out of a job and "not at work" at the time of the Census for whatever reason, including any not normally associated with unemployment. The category "not at work" includes those who stated that they were usually engaged in work, but were not actively seeking a job at the time of the Census by reason of sickness, accident, etc., or because they were on strike, changing jobs or temporarily laid off, etc. It includes also persons able and willing to work but unable to secure employment, as well as casual and seasonal workers not actually in a job at the time of the Census. The numbers shown as "not at work", therefore, do not represent the number of unemployed available for work and unable to obtain it.

### CAUSES OF UNEMPLOYMENT: AUSTRALIA, CENSUSES, 1933 TO 1961

Year	Unable to secure employment	Temporarily laid off	Illness	Accident	Industrial dispute	Other	Total
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#### MALES

1933..	374,569	(a)	18,083	4,702	1,595	6,483	405,432
1947(b)	17,314	12,458	14,639	2,985	475	(c) 18,743	66,614
1954(b)	9,912	4,423	11,879	2,804	344	(c) 11,652	41,014
1961(b)	85,448	12,162	13,931	6,262	547	(c) 10,280	128,630

#### FEMALES

1933..	62,630	(a)	9,193	434	95	3,465	75,817
1947(b)	2,254	2,449	4,396	280	24	(c) 7,512	16,915
1954(b)	3,685	1,386	4,310	318	17	(c) 4,284	14,000
1961(b)	28,054	4,009	5,928	793	202	(c) 4,991	43,977

#### PERSONS

1933..	437,199	(a)	27,276	5,136	1,690	9,948	481,249
1947(b)	19,568	14,907	19,035	3,265	499	(c) 26,255	83,529
1954(b)	13,597	5,809	16,189	3,122	361	(c) 15,936	55,014
1961(b)	113,502	16,171	19,859	7,055	749	(c) 15,271	172,607

(a) Not available. (b) Persons in the work force who were "not at work" (see explanation above) at the time of the Census. (c) The majority of these persons were resting between jobs or changing jobs.



Details of the number of persons receiving unemployment and sickness benefits and the payments made are shown in Chapter XV, Welfare Services. Current figures are included in the *Monthly Bulletin of Employment Statistics*, *Quarterly Summary of Australian Statistics*, *Monthly Review of Business Statistics* and *Digest of Current Economic Statistics*.

### § 3. Commonwealth Employment Service

Statutory warrant for the Commonwealth Employment Service (C.E.S.) is to be found in the *Re-establishment and Employment Act 1945-1959* (sections 47 and 48). In brief, the main functions of the Service are to assist people seeking employment to obtain positions best suited to their training, experience, abilities and qualifications; and to assist employers seeking labour to obtain employees best suited to the demands of the employers' particular class of work.

The organization and functions of the C.E.S. conform to the provisions of the Employment Service Convention 1948 of the International Labour Organization, which was ratified by Australia in December, 1949. In addition, C.E.S. practices follow substantially the provisions of the I.L.O. Employment Service Recommendation, 1948.

The C.E.S. functions within the Employment Division of the Department of Labour and National Service on a decentralized basis. The Central Office is in Melbourne and there is a Regional Office in the capital city of each State, with 142 District Employment Offices and Branch Offices in suburban and the larger provincial centres and 339 agents in the smaller country centres. The District Employment Offices and Branch Offices are distributed as follows: New South Wales, 55; Victoria, 37; Queensland, 21; South Australia, 11; Western Australia, 12; Tasmania, 4; Northern Territory, 1; Australian Capital Territory, 1.

The C.E.S. provides specialized facilities for young people, persons with physical and mental handicaps, ex-members of the defence forces, migrants, rural workers and persons with professional and technical qualifications. Vocational guidance is provided free of charge by a staff of qualified psychologists. It is available to any person, but is provided particularly for young people, ex-servicemen and the physically handicapped. In New South Wales, the State Department of Labour and Industry provides this service, mainly to young people leaving school.

The C.E.S. has responsibilities in the administration of the unemployment benefits provided under the *Social Services Act 1947-1962*. All applicants for benefits must register at a District Employment Office or agency of the C.E.S., which is responsible for certifying whether or not suitable employment can be offered to them.

The C.E.S. is responsible for placing in employment migrant workers sponsored by the Commonwealth under the Commonwealth Nomination and similar schemes. This includes arranging for them to move to their initial employment and for their admission, if necessary, to Commonwealth migrant hostels. Assistance to obtain employment is provided to other migrants as required. From the inception of the various free and assisted schemes, including the Displaced Persons Scheme, to the end of December, 1962, about 216,000 British and European migrant workers had been placed in initial employment by the C.E.S. Since 1951, it has been responsible for recruiting Australian experts for overseas service under the Colombo Plan and the United Nations Expanded Programme of Technical Assistance. The principal spheres in which experts have been supplied are agriculture, education, engineering, geology, health, and economic and scientific research and development.

In association with placement activities, regular surveys of the labour market are carried out, and detailed information is supplied to interested Commonwealth and State Government Departments and instrumentalities and to the public. Employers, employees and other interested persons are advised on labour availability and employment opportunities in various occupations and areas and on other matters concerning employment.

The service completed its sixteenth year of operation in May, 1962. During the year ended 31st December, 1962, there were 913,400 applicants who registered for employment, of whom 613,378 were referred to employers and 397,089 placed in employment. New vacancies notified numbered 549,624 and vacancies unfilled at the end of December, 1962, 32,184.

Prior to the setting up of the Commonwealth Employment Service, State Labour Exchange Organizations existed in several States, but they have been superseded. Details of the organization and administration of these exchanges were given in *Labour Report* No. 30, page 133.

#### § 4. Industrial Disputes

1. **General.**—Detailed information regarding industrial disputes involving stoppage of work is given in the *Labour Report*. A table showing statistics of industrial disputes for each year from 1913 is contained in the Appendix to *Labour Report* No. 49, 1961.

Particulars of all disputes in progress during the year are included in the annual figures whether the dispute commenced in that year or was in progress at the beginning of the year. Consequently, details of "the number of disputes" and "workers involved" in disputes which commenced in any year and were still in progress during the following year are included in the figures for both years.

2. **Industrial Groups.**—The following table gives, for Australia as a whole, particulars of industrial disputes which were in progress during 1962, classified according to industrial groups. As from 1959, the industrial groups were rearranged to conform, as nearly as may be, to the order adopted in other tables in this chapter. However, the figures for each industrial group shown are comparable with those published in issues of the Official Year Book prior to No. 47, 1961.

INDUSTRIAL DISPUTES(a): INDUSTRIAL GROUPS, AUSTRALIA, 1962

Industrial group	Number	Workers involved			Working days lost	Estimated loss in wages (£'000)
		Directly	Indirectly (b)	Total		
Agriculture, grazing, etc. .. ..	1	16	87	103	569	1.7
Coal mining .. ..	299	38,231	31	38,262	43,739	187.7
Other mining and quarrying .. ..	5	2,091	..	2,091	2,796	13.8
Engineering, metals, vehicles, etc. ..	250	42,614	11,332	53,946	108,971	451.3
Textiles, clothing and footwear .. ..	..	..	..	..	..	..
Food, drink and tobacco .. ..	149	45,490	8,967	54,457	101,487	391.9
Sawmilling, furniture, etc. .. ..	..	..	..	..	..	..
Paper, printing, etc. .. ..	6	1,966	..	1,966	13,639	54.7
Other manufacturing .. ..	93	19,853	1,972	21,825	69,521	302.0
Building and construction .. ..	135	27,221	507	27,728	49,376	223.3
Railway and tramway services .. ..	12	9,176	71	9,247	8,947	32.5
Road and air transport .. ..	30	20,192	55	20,247	18,625	78.2
Shipping .. ..	3	181	..	181	720	3.0
Stevedoring .. ..	180	121,245	..	121,245	86,571	367.9
Amusement, hotels, personal service, etc. ..	8	701	8	709	1,075	3.4
Other industries(c) .. ..	12	1,846	..	1,846	2,719	10.7
<b>Total .. ..</b>	<b>1,183</b>	<b>330,823</b>	<b>23,030</b>	<b>353,853</b>	<b>508,755</b>	<b>2,122.1</b>

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute. (c) Includes Communication; Finance and Property; Wholesale and Retail Trade; Public Authority (n.e.i.); and Community and Business Services.

A graph showing, for the years 1953 to 1962, the working days lost as a result of industrial disputes in the main industrial groups is shown on page 467.

3. **States and Territories.**—The following table gives particulars of the number of industrial disputes in each State and Territory, together with the number of workers involved and the losses in working days and wages caused by disputes which were current during each of the years 1958 to 1962.

INDUSTRIAL DISPUTES(a): STATES AND TERRITORIES

State or Territory	Year	Number	Workers involved			Working days lost	Estimated loss in wages (£'000)
			Directly	Indirectly (b)	Total		
New South Wales ...	1958	624	137,922	3,906	141,828	231,537	832.7
	1959	547	123,558	2,493	126,051	211,352	819.6
	1960	736	289,266	7,646	296,912	416,762	1,731.9
	1961	529	131,661	5,295	136,956	318,629	1,316.0
	1962	752	195,344	13,623	208,967	303,400	1,285.9
Victoria ...	1958	66	45,594	1,124	46,718	99,855	340.3
	1959	60	31,134	1,107	32,241	35,890	131.4
	1960	98	86,002	2	86,004	102,805	397.1
	1961	91	51,447	1,300	52,747	72,471	304.8
	1962	166	72,525	720	73,245	100,606	418.6
Queensland ...	1958	203	60,208	2,024	62,232	87,866	343.7
	1959	175	50,883	3,996	54,879	90,777	330.7
	1960	173	155,073	3,566	158,639	153,061	594.7
	1961	123	73,442	4,798	78,240	168,958	914.6
	1962	175	33,445	8,321	41,766	75,951	299.4
South Australia ...	1958	22	8,129	62	8,191	9,338	34.5
	1959	21	5,437	..	5,437	7,487	24.9
	1960	42	25,735	12	25,747	16,568	61.8
	1961	26	17,012	321	17,333	17,256	66.8
	1962	31	11,748	100	11,848	14,599	59.4
Western Australia ...	1958	20	10,847	160	11,007	2,970	10.4
	1959	20	10,864	383	11,247	11,243	39.6
	1960	43	25,684	..	25,684	27,342	106.6
	1961	22	9,588	99	9,687	23,233	94.5
	1962	28	8,280	83	8,363	6,300	25.0
Tasmania ...	1958	24	9,268	..	9,268	4,508	15.1
	1959	34	6,348	..	6,348	6,593	24.4
	1960	40	9,142	..	9,142	6,991	27.6
	1961	14	4,645	16	4,661	4,622	19.1
	1962	18	5,048	78	5,126	3,993	17.5
Northern Territory...	1958	27	3,535	..	3,535	3,376	12.5
	1959	9	1,007	11	1,018	966	3.5
	1960	9	942	..	942	1,226	5.3
	1961	4	456	..	456	709	4.0
	1962	6	428	..	428	298	1.3
Australian Capital Territory	1958	1	70	..	70	440	1.4
	1959	3	238	12	250	731	3.1
	1960	4	209	..	209	352	1.8
	1961	6	275	2	277	933	4.0
	1962	7	4,005	105	4,110	3,608	15.0
Australia ...	1958	987	275,573	7,276	282,849	439,890	1,590.6
	1959	869	229,469	8,002	237,471	365,039	1,377.2
	1960	1,145	592,053	11,226	603,279	725,107	2,926.8
	1961	815	288,526	11,831	300,357	606,811	2,723.8
	1962	1,183	330,823	23,030	353,853	508,755	2,122.1

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute.

4. **Duration.**—(i) *General.* The duration of each industrial dispute involving a loss of work, i.e. the time between the cessation and resumption of work, has been calculated in working days, exclusive of Saturdays, Sundays and holidays, except where the establishment involved carries on a continuous process (e.g. metal smelting and cement manufacture).

(ii) *Industrial Groups, 1962.* The following table shows, for the year 1962, industrial disputes in coal mining, stevedoring and other industries classified according to duration.

## DURATION OF INDUSTRIAL DISPUTES(a): AUSTRALIA, 1962

Duration(b)	Number	Workers involved		Working days lost		Estimated loss in wages (£'000)
		Number	Proportion of total (per cent.)	Number	Proportion of total (per cent.)	
COAL MINING						
1 day and less .. ..	221	28,660	74.9	18,178	41.5	77.7
2 days and more than 1 day ..	41	5,333	13.9	8,833	20.2	37.2
3 days and more than 2 days ..	14	1,579	4.1	4,194	9.6	17.3
Over 3 days and less than 1 week	16	1,818	4.8	7,261	16.6	33.4
1 week and less than 2 weeks ..	7	872	2.3	5,273	12.1	22.1
2 weeks and less than 4 weeks ..	..	..	..	..	..	..
4 weeks and less than 8 weeks ..	..	..	..	..	..	..
8 weeks and over .. ..	..	..	..	..	..	..
Total .. ..	299	38,262	100.0	43,739	100.0	187.7
STEVEDORING						
1 day and less .. ..	153	105,802	87.3	61,138	70.6	259.8
2 days and more than 1 day ..	19	12,380	10.2	15,611	18.0	66.3
3 days and more than 2 days ..	6	905	0.7	2,219	2.6	9.5
Over 3 days and less than 1 week	2	2,158	1.8	7,603	8.8	32.3
1 week and less than 2 weeks ..	..	..	..	..	..	..
2 weeks and less than 4 weeks ..	..	..	..	..	..	..
4 weeks and less than 8 weeks ..	..	..	..	..	..	..
8 weeks and over .. ..	..	..	..	..	..	..
Total .. ..	180	121,245	100.0	86,571	100.0	367.9
OTHER INDUSTRIES						
1 day and less .. ..	315	113,924	58.6	88,445	23.4	355.8
2 days and more than 1 day ..	141	36,016	18.5	55,217	14.6	215.6
3 days and more than 2 days ..	78	17,702	9.1	48,780	12.9	194.9
Over 3 days and less than 1 week	57	6,262	3.2	24,940	6.6	103.9
1 week and less than 2 weeks ..	82	16,552	8.5	107,227	28.3	470.1
2 weeks and less than 4 weeks ..	26	3,734	1.9	49,871	13.2	207.3
4 weeks and less than 8 weeks ..	4	143	0.1	3,276	0.8	15.3
8 weeks and over .. ..	1	13	0.1	689	0.2	3.6
Total .. ..	704	194,346	100.0	378,445	100.0	1,566.5
ALL INDUSTRIES						
1 day and less .. ..	689	248,386	70.2	167,761	33.0	693.3
2 days and more than 1 day ..	201	53,729	15.2	79,661	15.7	319.1
3 days and more than 2 days ..	98	20,186	5.7	55,193	10.9	221.7
Over 3 days and less than 1 week	75	10,238	2.9	39,804	7.8	169.6
1 week and less than 2 weeks ..	89	17,424	4.9	112,500	22.1	492.2
2 weeks and less than 4 weeks ..	26	3,734	1.1	49,871	9.8	207.3
4 weeks and less than 8 weeks ..	4	143	..	3,276	0.6	15.3
8 weeks and over .. ..	1	13	..	689	0.1	3.6
Grand Total .. ..	1,183	353,853	100.0	508,755	100.0	2,122.1

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more.

(b) One week equals five working days.

5. Causes.—(i) *General.* In issues of the Official Year Book prior to No. 40, the causes of industrial disputes were classified in some detail for all industries combined. As from 1950, however, stoppages have been analysed in three separate groups, "Coal Mining", "Stevedoring" and "Other Industries".

Causes have been grouped under four main headings:—(1) Wages, Hours and Leave; (2) Physical Working Conditions and Managerial Policy; (3) Trade Unionism; (4) Other Causes. The first group is restricted to disputes involving general principles relating to wages, hours and leave; minor questions regarding the claims to pay or leave by individual employees are included under managerial policy. The second group comprises disputes regarding physical working conditions and general questions of managerial policy, which term covers disciplinary action, the promotion of employees, the employment of particular individuals, personal disagreements between employees and supervisory staff and disputes arising from the computation of wages, leave, etc., in individual cases. The third group includes stoppages over employment of non-unionists, inter-union and intra-union disputes, disputes over recognition of union activities, and sympathy stoppages in support of employees

in another industry. The last group comprises disputes by way of protest against situations not arising from the usual relationship of employer and employee, e.g. political matters, and cases (occurring mainly in the coal mining industry) where the cause of the stoppage is not officially made known to the management.

(ii) *Industry Groups.* The following table shows particulars of industrial disputes for 1962 classified according to cause in three industry groups.

#### CAUSES OF INDUSTRIAL DISPUTES(a): AUSTRALIA, 1962

Cause of dispute	Coal mining	Stevedoring	Other industries	All industries
NUMBER OF DISPUTES				
Wages, hours and leave .. .. .	12	19	259	290
Physical working conditions and managerial policy ..	183	144	380	707
Trade unionism .. .. .	30	8	54	92
Other .. .. .	74	9	11	94
<b>Total .. .. .</b>	<b>299</b>	<b>180</b>	<b>704</b>	<b>1,183</b>
WORKERS INVOLVED(b)				
Wages, hours and leave .. .. .	1,928	38,989	92,395	133,312
Physical working conditions and managerial policy ..	21,185	69,589	88,547	179,321
Trade unionism .. .. .	3,150	3,847	8,246	15,243
Other .. .. .	11,999	8,820	5,158	25,977
<b>Total .. .. .</b>	<b>38,262</b>	<b>121,245</b>	<b>194,346</b>	<b>353,853</b>
WORKING DAYS LOST				
Wages, hours and leave .. .. .	2,304	28,478	163,645	194,427
Physical working conditions and managerial policy ..	29,098	50,763	194,230	274,091
Trade unionism .. .. .	2,944	3,351	16,123	22,418
Other .. .. .	9,393	3,979	4,447	17,819
<b>Total .. .. .</b>	<b>43,739</b>	<b>86,571</b>	<b>378,445</b>	<b>508,755</b>

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Includes workers indirectly involved. See note (b) to table on p. 520.

(iii) *Summary, 1958 to 1962.* The following table gives particulars of industrial disputes according to cause for the years 1958 to 1962.

#### CAUSES OF INDUSTRIAL DISPUTES(a): AUSTRALIA

Cause of dispute	1958	1959	1960	1961	1962
NUMBER OF DISPUTES					
Wages, hours and leave .. .. .	73	105	213	123	290
Physical working conditions and managerial policy ..	630	556	648	525	707
Trade unionism .. .. .	80	86	127	66	92
Other .. .. .	204	122	157	101	94
<b>Total .. .. .</b>	<b>987</b>	<b>869</b>	<b>1,145</b>	<b>815</b>	<b>1,183</b>
WORKERS INVOLVED(b)					
Wages, hours and leave .. .. .	15,861	74,327	228,695	114,125	133,312
Physical working conditions and managerial policy ..	158,729	108,839	154,401	102,125	179,321
Trade unionism .. .. .	16,432	21,564	43,321	13,797	15,243
Other .. .. .	91,827	32,741	176,862	70,310	25,977
<b>Total .. .. .</b>	<b>282,849</b>	<b>237,471</b>	<b>603,279</b>	<b>300,357</b>	<b>353,853</b>
WORKING DAYS LOST					
Wages, hours and leave .. .. .	56,214	118,010	254,926	248,864	194,427
Physical working conditions and managerial policy ..	279,253	185,282	277,755	261,454	274,091
Trade unionism .. .. .	23,139	28,826	64,617	34,021	22,418
Other .. .. .	81,284	32,921	127,809	62,472	17,819
<b>Total .. .. .</b>	<b>439,890</b>	<b>365,039</b>	<b>725,107</b>	<b>606,811</b>	<b>508,755</b>

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Includes workers indirectly involved. See note (b) to table on p. 520.

6. Methods of Settlement.—The following table shows particulars of industrial disputes for 1962, classified according to method of settlement, in three industry groups.

## INDUSTRIAL DISPUTES(a): METHODS OF SETTLEMENT, AUSTRALIA, 1962

Method of settlement	Coal mining	Stevedoring	Other industries	All industries
NUMBER OF DISPUTES				
By private negotiation .. .. .	54	3	137	194
By mediation not based on legislation .. .. .	1	..	1	2
State legislation—				
Under State Conciliation, etc., legislation .. .. .	1	1	100	102
By reference to State Government officials .. .. .	2	..	..	2
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—				
Conciliation and Arbitration Act .. .. .	..	..	120	120
Coal Industry Acts .. .. .	22	..	..	22
Stevedoring Industry Act .. .. .	..	..	..	..
Other Acts .. .. .	..	..	..	..
By reference to Commonwealth Government officials .. .. .	..	118	..	118
By filling places of workers on strike or locked out .. .. .	..	..	..	..
By closing down establishment permanently .. .. .	..	..	..	..
By resumption without negotiation .. .. .	219	58	346	623
By other methods .. .. .	..	..	..	..
Total .. .. .	299	180	704	1,183

## WORKERS INVOLVED(b)

By private negotiation .. .. .	4,999	264	23,787	29,050
By mediation not based on legislation .. .. .	59	..	150	209
State legislation—				
Under State Conciliation, etc., legislation .. .. .	229	36	18,990	19,255
By reference to State Government officials .. .. .	279	..	..	279
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—				
Conciliation and Arbitration Act .. .. .	..	..	20,939	20,939
Coal Industry Acts .. .. .	2,062	..	..	2,062
Stevedoring Industry Act .. .. .	..	..	..	..
Other Acts .. .. .	..	..	..	..
By reference to Commonwealth Government officials .. .. .	..	54,866	..	54,866
By filling places of workers on strike or locked out .. .. .	..	..	..	..
By closing down establishment permanently .. .. .	..	..	..	..
By resumption without negotiation .. .. .	30,634	66,079	130,480	227,193
By other methods .. .. .	..	..	..	..
Total .. .. .	38,262	121,245	194,346	353,853

## WORKING DAYS LOST

By private negotiation .. .. .	9,723	136	61,610	71,469
By mediation not based on legislation .. .. .	115	..	100	215
State legislation—				
Under State Conciliation, etc., legislation .. .. .	821	36	45,026	45,883
By reference to State Government officials .. .. .	1,003	..	..	1,003
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—				
Conciliation and Arbitration Act .. .. .	..	..	84,294	84,294
Coal Industry Acts .. .. .	6,187	..	..	6,187
Stevedoring Industry Act .. .. .	..	..	..	..
Other Acts .. .. .	..	..	..	..
By reference to Commonwealth Government officials .. .. .	..	45,036	..	45,036
By filling places of workers on strike or locked out .. .. .	..	..	..	..
By closing down establishment permanently .. .. .	..	..	..	..
By resumption without negotiation .. .. .	25,890	41,363	187,415	254,668
By other methods .. .. .	..	..	..	..
Total .. .. .	43,739	86,571	378,445	508,755

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more.

(b) Includes workers indirectly involved. See note (b) to table on p. 520.

## WORKERS' COMPENSATION LEGISLATION

A conspectus of the principal provisions of Workers' Compensation Acts in force in Australia at 31st December, 1961, will be found in *Labour Report* No. 49, pages 176-83.

## LABOUR ORGANIZATIONS

## § 1. Labour Organizations in Australia

1. **General.**—The figures shown in this section are prepared from a special collection of membership of labour organizations at 31st December each year. The affairs of single unions are not disclosed in the published results and this has assisted in securing complete information. The Bureau is indebted to the secretaries of trade unions for their co-operation in supplying information.

2. **Organizations Registered under the (Commonwealth) Conciliation and Arbitration Act.**—Under Part VIII. of the *Conciliation and Arbitration Act* 1904–1961, any association of employers in any industry which has, or any employer who has, employed, on an average taken per month, not less than 100 employees during the six months preceding application for registration, or any association of not less than 100 employees in any industry, may be registered. However, under the *Public Service Arbitration Act*, an association of less than 100 employees may be registered as an organization, provided that its members comprise at least three-fifths of all persons engaged in that industry in the Service. Such organizations are included in the figures shown below. Registered unions include both interstate associations and associations operating within one State only. Registration under Commonwealth legislation began in 1906. At the end of 1962, the number of employers' organizations registered under the provision of the *Conciliation and Arbitration Act* was 64. The number of unions of employees registered at the end of 1962 was 155, with a membership of 1,622,322 representing 83 per cent. of the total membership of all trade unions in Australia.

3. **Particulars regarding Trade Unions.**—(i) *Types.* The trade unions in Australia are very diverse in character, and range from the small independent association to the large interstate organization, which, in its turn, may be a branch of an international body. Broadly speaking, there are four distinct classes of labour organizations:—(a) the local independent; (b) the State; (c) the interstate; and (d) the Australasian or international; but a number of variations occur from each of these classes. The schemes of organization of interstate or federated unions vary greatly in character. In some unions, the State organizations are bound together under a system of unification with centralized control, while in others the State units are practically independent and self-governing, the federal bond being loose and existing only for one or two specified purposes.

(ii) *Number and Membership.* Returns showing membership by States as at 31st December each year are obtained for all trade unions and employee organizations. The following table shows the position at the end of each of the years 1960 to 1962.

TRADE UNIONS: NUMBER AND MEMBERSHIP

State or Territory	Number of separate unions			Number of members			Percentage increase in membership(b)		
	1960	1961	1962	1960	1961	1962	1960	1961	1962
New South Wales ..	231	226	222	768,458	743,581	765,245	3.6	-3.2	2.9
Victoria ..	157	156	155	479,244	486,760	498,018	3.9	1.6	2.3
Queensland ..	133	133	135	327,416	329,746	333,999	1.6	0.7	1.3
South Australia ..	136	134	133	153,468	151,488	160,390	4.3	-1.3	5.9
Western Australia ..	155	152	152	115,941	115,000	121,067	1.3	-0.8	5.3
Tasmania ..	101	103	103	56,006	56,873	57,255	3.5	1.5	0.7
Northern Territory	25	24	24	3,091	2,904	3,570	21.1	-6.0	22.9
Australian Capital Territory ..	31	34	38	8,768	8,251	10,940	18.9	-5.9	32.6
Australia ..	(a)363	(a)355	(a)347	1,912,392	1,894,603	1,950,484	3.3	-0.9	2.9

(a) Without interstate duplication. See below. (b) On preceding year.

NOTE.—Minus sign (—) denotes decrease.

In the preceding table, under the heading "Number of Separate Unions", a union reporting members in a State is counted as one union within that State. The figures by States do not add to the Australian total (shown in the last line) because a union represented in more than one State is included in the figure for each State in which it is represented, but is counted only once in the Australian total.

A table showing the number and membership of trade unions in Australia for the years 1912 to 1961 will be found in the Appendix to *Labour Report* No. 49.

(iii) *Classification in Industrial Groups.* The following table shows the number of unions and members thereof in Australia at the end of each of the years 1960 to 1962.

The industrial groups have been rearranged to conform, as nearly as may be, to the order adopted in other tables in this chapter. However, the figures for each industrial group shown are comparable with those published in previous issues.

#### TRADE UNIONS: INDUSTRIAL GROUPS, AUSTRALIA

Industrial Group	1960		1961		1962	
	No. of unions (a)	No. of members	No. of unions (a)	No. of members	No. of unions (a)	No. of members
Agriculture, grazing, etc. .. ..	3	63,459	3	61,420	3	60,720
Mining and quarrying .. ..	12	37,724	12	35,288	12	35,331
Manufacturing—						
Engineering metals, vehicles, etc. ..	14	292,355	13	291,541	12	294,646
Textiles, clothing and footwear ..	7	103,848	7	95,273	7	105,407
Food, drink and tobacco ..	34	119,813	34	128,016	34	130,312
Sawmilling, furniture, etc. ..	7	43,945	7	41,954	6	39,104
Paper, printing, etc. ..	6	51,763	6	51,810	6	52,104
Other manufacturing ..	32	92,571	32	82,584	31	87,082
<i>Total Manufacturing</i> ..	<i>100</i>	<i>704,295</i>	<i>99</i>	<i>691,178</i>	<i>96</i>	<i>708,653</i>
Building and construction ..	28	137,825	28	143,923	28	145,549
Railway and tramway services ..	25	139,050	25	133,823	25	134,672
Road and air transport ..	10	56,003	10	58,363	11	63,688
Shipping and stevedoring ..	14	36,108	14	35,016	14	34,033
Banking, insurance and clerical ..	20	112,819	19	118,250	19	121,236
Wholesale and retail trade ..	11	81,719	11	75,748	11	79,709
Public administration(b) ..	75	331,166	73	341,000	70	353,965
Amusement, hotels, personal service, etc.	25	69,371	23	51,393	22	54,506
Other industries(c) ..	40	142,653	38	148,601	36	158,420
<b>Total</b> .. ..	<b>363</b>	<b>1,912,392</b>	<b>355</b>	<b>1,894,603</b>	<b>347</b>	<b>1,950,484</b>

(a) Without interstate duplication. See para. (ii) above.  
municipal, etc.

(c) Includes Community and business services.

(b) Includes communication,

(iv) *Number of Members and Proportion of Wage and Salary Earners.* The following table shows the estimated percentages of wage and salary earners in employment who are members of trade unions. As current estimates of wage and salary earners in employment do not include employees engaged in rural industry or females in private domestic service, the percentages have been calculated on figures obtained by adding to the end of year estimates the number of employees in rural industry and females in private domestic service recorded at the Census of 30th June, 1954. For this reason, and also because the membership of trade unions includes some persons not in employment, the percentages shown in the table must be regarded as approximations. The estimates of employment are subject to revision pending detailed results of the 1961 Population Census.

#### TRADE UNIONS: NUMBER OF MEMBERS AND PROPORTION OF TOTAL WAGE AND SALARY EARNERS, AUSTRALIA

Year	Number of members			Proportion of total wage and salary earners (Per cent.)		
	Males	Females	Persons	Males	Females	Persons
1958 .. ..	1,465,682	345,536	1,811,218	65	41	58
1959 .. ..	1,494,669	356,058	1,850,727	65	41	58
1960 .. ..	1,534,423	377,969	1,912,392	65	41	58
1961 .. ..	1,521,900	372,703	1,894,603	66	41	59
1962 .. ..	1,561,854	388,630	1,950,484	66	42	59



(v) *Interstate or Federated Trade Unions.* The following table gives particulars of the number and membership of interstate or federated trade unions in 1962.

**INTERSTATE OR FEDERATED TRADE UNIONS(a): AUSTRALIA, 1962**

Particulars	Unions operating in—					Total
	2 States	3 States	4 States	5 States	6 States	
Number of unions ..	12	8	21	32	67	140
„ „ members ..	29,962	63,549	184,201	371,650	1,092,541	1,741,903

(a) Certain unions in this group have, in addition to branches in the States, branches in the Northern Territory and/or in the Australian Capital Territory.

4. **Central Labour Organizations.**—Delegate organizations, consisting of representatives from a group of trade unions, have been established in each of the capital cities and in a number of industrial centres elsewhere. Their revenue is raised by means of a *per capita* tax on the members of each affiliated union. In most of the towns where such central organizations exist, the majority of the local unions are affiliated with the central organization, which is usually known as the Labour or the Trades Hall Council. In Western Australia, a unified system of organization extends over the industrial centres throughout the State. In this State, there is a provincial branch of the Australian Labor Party, having a central council and executive, and metropolitan and branch district councils, with which the local bodies are affiliated. The central council, on which all district councils are represented, meets periodically. In the other five States, however, the organization is not so close, and, while provision usually exists in the rules of the central council at the capital city of each State for the organization of district councils or for the representation of the central council on the local councils in the smaller industrial centres of the State, the councils in each State are generally independent bodies.

The table below shows the number of metropolitan and district or local labour councils, together with the number of unions and branches of unions affiliated therewith in each State and Territory at the end of 1962.

**CENTRAL LABOUR ORGANIZATIONS: NUMBER, AND UNIONS AND BRANCH UNIONS AFFILIATED, 1962**

Particulars	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
Number of councils ..	12	9	12	5	10	5	..	1	54
Number of unions and branch unions affiliated	336	282	176	148	413	123	..	21	1,499

The figures given in the preceding table concerning the number of unions do not necessarily represent separate unions, since the branches of a large union may be affiliated with the local trades councils in the several towns in which they are represented.

A Central Labour Organization, now called the Australian Council of Trade Unions, came into being during 1927. The Council was created to function on behalf of the trade unions of Australia, and was founded at an All-Australian Trade Union Congress held in Melbourne in May, 1927. The A.C.T.U. consists of affiliated unions and affiliated Metropolitan and/or State Labour Councils and Provincial Councils. The Metropolitan or State Labour Council in each State is the State Branch of the A.C.T.U. and has the right to appoint one representative to act on the executive of the Council. In addition to the representatives of the State Branches of the A.C.T.U., six delegates are elected by and from Congress, one

from each of the following industry groups of unions:—Building, Food and Distributive Services, Manufacturing, Metal, Services, Transport. To this executive are added the four officers, namely, President, two Vice-Presidents and Secretary, who are elected by and from the Australian Congress of Trade Unions.

The ordinary meetings of Congress are held in each alternate year. Special meetings of Congress shall be held whenever deemed advisable by decisions of the executive, as approved by the majority of its branches, or by resolution of unions representing one-third of the total membership of the A.C.T.U.

The objectives of the A.C.T.U. are the socialization of industry, i.e. production, distribution and exchange, and the utilization of the resources of Australia for the benefit of the people—ensuring full employment, with rising standards of living, real security and full cultural opportunities for all. The methods to be adopted are:—the closer organization of the workers by the transformation of the Australian trade union movement from the craft to an industrial basis, by grouping of unions in their respective industries and by the amalgamation of unions with a view to the establishment of one union in each industry; the consolidation of the Australian Labour Movement, with the object of unified control, administration and action; the centralized control of industrial disputes; educational propaganda among unions; and political action to secure satisfactory working-class legislation.

The A.C.T.U. was the first interstate body in Australia with authority to deal with industrial matters of an interstate character affecting the trade union movement generally. It is also the body responsible for submitting to the Commonwealth Government the names of persons suitable for selection as the Australian workers' delegate to the annual International Labour Conference.

All the major unions are affiliated with the A.C.T.U., with the exception of the largest, the Australian Workers' Union, which is itself virtually a central organization of branches catering in the main for employees in rural and constructional pursuits.

Between the trade union and the central organization of unions may be classed certain State or district councils organized on trade lines, and composed of delegates from separate unions whose members' interests are closely connected because of their occupations. Delegate councils of bakers, bread carters and mill employees, or of unions connected directly or indirectly with the iron, steel, or brass trades, or with the building trades, may be so classed.

## § 2. International Labour Organization

The International Labour Organization (I.L.O.) was established on 11th April, 1919, as an autonomous institution associated with the League of Nations. Its original constitution was adopted as Part XIII. of the Treaty of Versailles and formed part of other treaties of peace. During the years between its establishment and the outbreak of the 1939–45 War, the I.L.O., with headquarters at Geneva, played a leading role in promoting the improvement of labour conditions throughout the world.

In 1940, in order to ensure that the I.L.O. should be able to continue to function freely, a working centre was established at Montreal, Canada. In 1946, the Organization became the first of the specialized agencies of the United Nations. Under the terms of agreement, the United Nations recognizes the I.L.O. as a specialized agency having responsibility in the field defined by its constitution, which embraces labour conditions, industrial relations, employment organization, social security and other aspects of social policy. The Organization has three basic parts. These are the International Labour Conference, its highest authority, which as a rule meets annually; the Governing Body, its executive council, which usually meets three times each year; and the International Labour Office, which provides the secretariat of the Organization. The Conference is composed of delegations from the Member States of the Organization. At the end of 1962, there were 105 Member States, each of which is entitled to be represented by four delegates—two government, one representing employers and one representing workers, together with their advisers. Each delegate speaks and votes independently, so that all points of view in each country are fully expressed. The Governing Body consists of the representatives of twenty governments

and ten employers' and ten workers' representatives. Of the twenty government representatives, half are from the ten countries of major industrial importance and ten are elected by the remaining governments. These latter ten government representatives and the ten employers' and ten workers' titular delegates and the deputy members of the three groups are elected by their groups at the Conference every three years. Since the 1939-45 War, Australia has alternated as a member and deputy member of the government group, and is at present a deputy member. Particulars are given in *Labour Report* No. 49 of the proceedings of International Labour Conferences up to the 45th Session, held in Geneva in June, 1961. For details of I.L.O. conventions ratified by Australia, see *Labour Report* Nos. 47 to 49.

## CHAPTER XIII

### OVERSEA TRADE

NOTE.—Because of the limitations of space, the statistics in this chapter are in the main restricted to summarized form. For details of imports and exports, reference should be made to the annual bulletins on *Oversea Trade* (preliminary and final), *Australian Exports*, and *Imports Cleared for Home Consumption*. Current information on oversea trade is contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, the *Monthly Bulletin of Oversea Trade Statistics*, and a preliminary monthly statement on *Australian Oversea Trade—Merchandise*. The *Australian Balance of Payments* (mimeographed statement) contains detailed information on this subject, and there are also the following additional mimeographed statements:—*Exports of Wool* (monthly), *Oversea Trade with Major Groups of Countries* (quarterly), *Trade of Australia with the United Kingdom* (half-yearly) and *Trade of Australia with Eastern Countries* (annually).

#### § 1. Legislation affecting Oversea Trade

1. **Constitutional Powers.**—By the *Commonwealth of Australia Constitution Act*, section 51 (i), the power to make laws with respect to trade and commerce with other countries was conferred on the Commonwealth Parliament. Under section 86 of the Constitution, the collection and control of duties of customs and excise passed to the Executive Government of the Commonwealth on 1st January, 1901. Other references to trade and commerce are contained in sections 87 to 95 of the Constitution (*see pp. 18–19*).

2. **Commonwealth Legislation.**—The principal Commonwealth Acts affecting oversea trade at present in force are: the *Customs Act* 1901–1960; *Customs Tariff* 1933–1962; *Customs Tariff (Canadian Preference)* 1960–1962; *Customs Tariff (New Zealand Preference)* 1933–1962; *Customs Tariff (Papua and New Guinea Preference)* 1936–1959; *Customs Tariff (Federation of Rhodesia and Nyasaland Preference)* 1960–1962; *Customs Tariff (Primage Duties)* 1934–1958; *Customs Tariff (Dumping and Subsidies) Act* 1961; *Trading with the Enemy Act* 1939–1957.

The Customs Act is the administrative Act under which the Department of Customs and Excise operates, while the Customs Tariffs provide the statutory authority for imposing the actual rates of duty operative from time to time.

3. **The Customs Tariff.**—(i) *General.* The first Commonwealth Customs Tariff was introduced by Resolution on 8th October, 1901, from which date uniform duties came into effect throughout Australia. The tariff has since been extensively amended. The Act at present in operation is the *Customs Tariff* 1933–1962.

The Australian Customs Tariff has been developed in conformity with the policy of protecting economic and efficient Australian industries and of granting preferential treatment to certain imports from certain countries of the Commonwealth of Nations. Duties are also imposed on some goods, generally of a luxury nature, for revenue purposes. Customs collections are a major source of revenue, but in its protective character the tariff has an important influence on the Australian economy.

Australia has three classes of tariff—the British Preferential Tariff, the Intermediate Tariff and the General Tariff.

(ii) *British Preference.* British Preferential Tariff rates of duty apply to goods the produce or manufacture of the United Kingdom, provided that such goods comply with the laws and statutory regulations in force at the time affecting the grant of preference,

and that the goods have been shipped in the United Kingdom to Australia and have not been transhipped, or, if transhipped, it is proved to the satisfaction of the Collector of Customs that the intended destination of the goods, when originally shipped from the United Kingdom, was Australia. For the purpose of the preferential tariff, the following goods are deemed by section 151A of the *Customs Act* 1901–1960 to be the produce or manufacture of the United Kingdom, provided the final process of their production or manufacture was performed in that country.

- (a) Goods which are wholly produced or wholly manufactured in the United Kingdom from materials in one or more of the following classes:—
  - (i) Materials wholly produced or wholly manufactured in the United Kingdom or in Australia;
  - (ii) Imported unmanufactured raw materials;
  - (iii) Imported manufactured raw materials as determined by the Minister.
- (b) Goods of the factory or works cost of which not less than 75 per cent. is represented—
  - (i) by labour or material of the United Kingdom; or
  - (ii) by labour or material of the United Kingdom and labour or material of Australia.
- (c) Goods of a class or kind not commercially produced or manufactured in Australia and of the factory or works cost of which not less than 25 per cent. (or 50 per cent. if the Minister so determines) is represented—
  - (i) by labour or material of the United Kingdom; or
  - (ii) by labour or material of the United Kingdom and labour or material of Australia.

The British Preferential Tariff also applies to the Republic of Ireland and, with the exception of a relatively small number of commodities which carry special rates of duty, to Canada, New Zealand (except Cook Islands) and the Territory of Papua and New Guinea, and the abovementioned preference conditions apply *mutatis mutandis* to each of those countries, except that in respect of New Zealand the percentage content of goods under clause (b) of the said conditions is 50 per cent. of New Zealand and Australian labour and materials or 75 per cent. of New Zealand and United Kingdom or of New Zealand, Australian and United Kingdom labour and materials. In relation to certain goods, the British Preferential Tariff also applies to specified countries of the Commonwealth of Nations and most of the British non-self-governing colonies, protectorates and trust territories.

(iii) *Intermediate Tariff.* The Intermediate Tariff has been a feature of the Australian Tariff for a considerable number of years, although its effective application dates only from 1st January, 1937, consequent upon the conclusion of trade agreements with Belgium, Czechoslovakia and France in 1936. The countries to which the Intermediate Tariff applies include those countries with which Australia has concluded trade agreements (including tariff negotiations pursuant to the General Agreement on Tariffs and Trade) and countries which accord Australia reciprocal most-favoured-nation tariff treatment by reason of agreements between those countries and the United Kingdom. The Intermediate Tariff has also been extended to some countries to which Australia has no formal obligation to accord most-favoured-nation treatment. The countries and the particular tariff items to which the Intermediate Tariff applies are specified by order made in pursuance of section 9A of the *Customs Tariff* 1933–1962.

(iv) *General Tariff.* The General Tariff applies to goods other than those to which the British Preferential Tariff or Intermediate Tariff or special rates under trade agreements apply.

4. *Primage Duties.*—In addition to the duties imposed by the Customs Tariff, *ad valorem* primage duties at rates of 4 per cent., 5 per cent. or 10 per cent. are charged on some goods according to the type of goods and origin thereof under the *Customs Tariff (Primage Duties)* 1934–1958. Other goods are exempt from primage duty. Goods the produce or manufacture of New Zealand, Norfolk Island, Fiji, Cocos Islands, Christmas Island and the Territory of Papua and New Guinea are exempt from primage duty.

**5. Tariff Board.**—The *Tariff Board Act* 1921–1962 provides for the appointment of a Tariff Board consisting of eight members. Of these, two must, and three may, be members of the Commonwealth Public Service at the time of their appointment (or first appointments in the case of re-appointments). Members of the Board are appointed for terms of not less than one year and not more than five years. The purpose of the Tariff Board is to advise the government on matters relating to the protection and encouragement of Australian industry.

The Minister of State for Trade is required to refer to the Board for inquiry and report the following matters:—the necessity for new, increased, or reduced duties; the necessity for granting bounties and the effect of existing bounties; and any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff or by the restriction of the importation of any goods by charging unnecessarily high prices for his goods or acting in restraint of trade. In addition, the Minister may refer the following matters to the Tariff Board for inquiry and report:—the general effect of the working of the Customs Tariff and the Excise Tariff; the fiscal and industrial effects of the Customs laws on the Commonwealth; the incidence between the rates of duty on raw materials and on finished or partly finished products; and other matters affecting the encouragement of primary and secondary industries in relation to the Tariff. The Minister of State for Customs and Excise may refer to the Tariff Board for inquiry and report the following matters:—the classification of goods in the Customs Tariff or Excise Tariff and matters in connexion with the interpretation of these Tariffs; the question of the value for duty of goods; whether goods not prescribed in departmental by-laws should be so prescribed; and any matters in respect of which action may be taken under the *Customs Tariff (Dumping and Subsidies) Act* 1961.

Where a matter of the necessity for new or increased duties on any goods has been referred to the Board for inquiry and report, the Board may, in its report, recommend the restriction of the importation of those goods for such period as is specified in the report.

Inquiries conducted by the Board relating to a revision of the Tariff, a proposal for a bounty, a question under the *Customs Tariff (Dumping and Subsidies) Act*, or any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff or by the restriction of the importation of any goods, are held in public, and evidence in such inquiries is taken in public on oath, unless the Board accepts evidence as confidential or in the form of a written statement by a witness on oath. The Board is required to make available to the public the contents of any such written statement except any matter which it accepts as confidential.

The Minister for Trade may also request a Special Advisory Authority to inquire into cases where urgent action may be necessary to protect an Australian industry against import competition pending receipt and consideration of a full report by the Tariff Board. The Special Advisory Authority's report must be submitted to the Minister within thirty days of the making of the request. Temporary protection recommended by a Special Advisory Authority may be imposed, but may only operate for a period of up to three months after the date of receipt of the final report by the Tariff Board on the goods concerned.

**6. Anti-dumping Legislation.**—The *Customs Tariff (Dumping and Subsidies) Act* 1961 provides protection for Australian industry against various forms of unfair trading. Under this Act, dumping duty may be imposed on goods that are sold to Australia at an export price which is less than the normal value of the goods, where this causes or threatens material injury to an Australian industry.

“Normal value” under the Act means:—

- (a) Fair market value in the country of export;
- (b) Price in the country of export to a third country;
- (c) Fair market value in a third country; or
- (d) Cost of production, plus f.o.b. charges, plus selling costs and profit.

Countervailing duty may be levied on goods in respect of which any subsidy, bounty, reduction, or remission of freight or other financial assistance has been, or is being, paid or granted directly or indirectly upon the production, manufacture, carriage or export of those goods. The amount of the countervailing duty in respect of any goods is a sum equal to the amount of the subsidy, bounty, reduction or remission of freight or other financial assistance.

Special duties may be collected also if dumped or subsidized goods are imported to the detriment of the trade of a third country in the Australian market.

Dumping and countervailing duties may be imposed to protect an Australian industry only after inquiry and report by the Tariff Board.

For information concerning the *Customs Tariff (Industries Preservation) Act 1921-1957* reference should be made to Official Year Book No. 47, page 483.

**7. Trade Descriptions.**—The *Commerce (Trade Descriptions) Act 1905-1950* gives power to require the application of a proper trade description on certain prescribed goods imported into or exported from Australia. Goods which must bear a prescribed trade description upon importation into Australia are specified in the *Commerce (Imports) Regulations*. As regards exports from Australia, marking requirements are prescribed in regulations issued under the Act and relating to specified export commodities.

**8. Import Controls.**—*Customs (Import Licensing) Regulations*. A comprehensive system of import licensing was introduced in Australia at the beginning of the second World War under the authority of the *Customs (Import Licensing) Regulations*.

With the end of the War, it was possible to relax the restrictions progressively. However, because of a serious deterioration in Australia's external financial position, import licensing controls were reimposed on 8th March, 1952, on imports from all sources except for goods originating in Papua, New Guinea and Norfolk Island.

The object of import licensing was to limit the value of imports to an annual rate determined by the government in order that payments for imports would not involve an excessive drawing on Australia's overseas exchange reserves. Imports were divided into a number of categories to which different licensing treatment was accorded (largely by the establishment of quotas for individual importers within each category). In general, the nature of goods and their relative importance to the Australian economy were taken into account in determining the licensing rate for particular goods.

Between March, 1952, and February, 1960, import restrictions were relaxed and intensified broadly in line with changes in Australia's balance of payments position.

The import controls were administered without discrimination as to country of origin, with the exception of those relating to imports from Japan and the dollar area. The special restrictions against Japanese imports were removed in July, 1957, and from October, 1955, Australia progressively removed discrimination against imports from the dollar area.

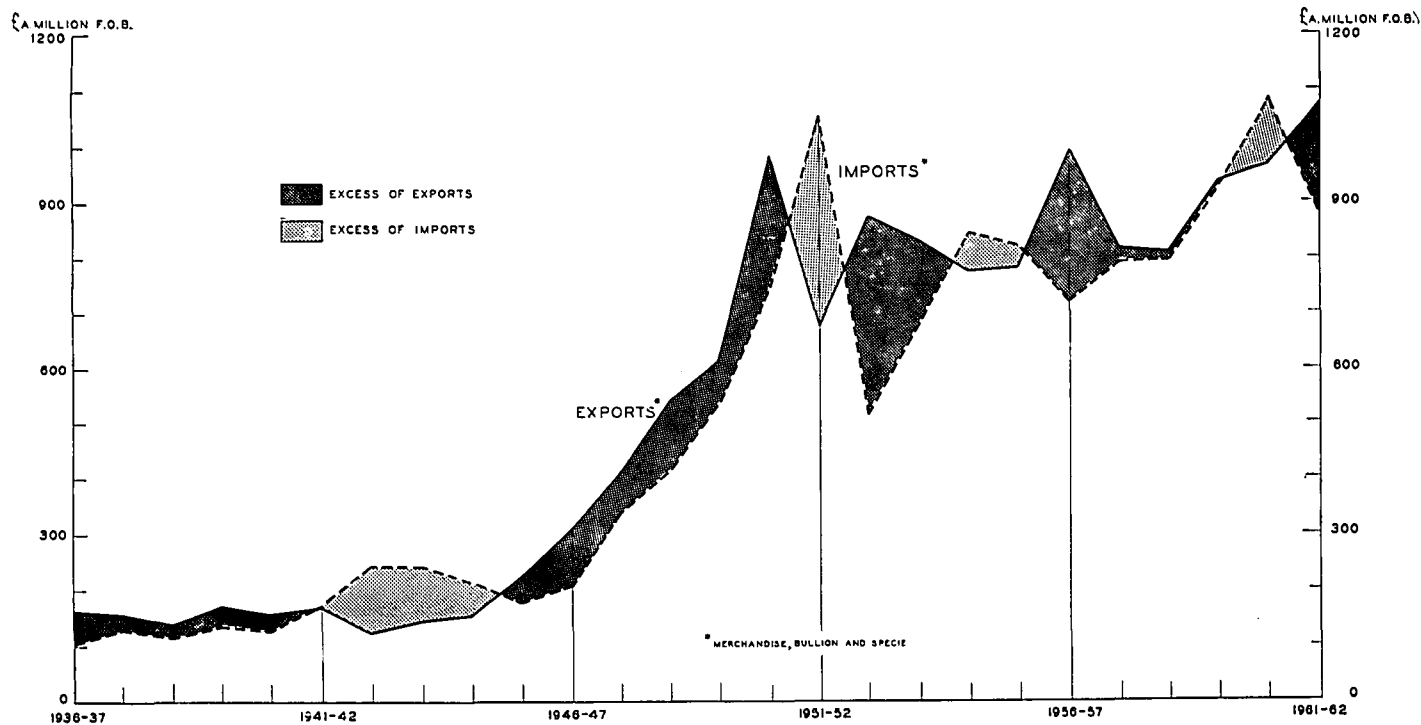
In accordance with the principle of relaxing and removing controls in the light of developments in Australia's balance of payments position, large-scale licensing changes involving the almost complete abolition of controls were made as from 23rd February, 1960. As a result of these changes, some 90 per cent. of total imports were exempted from control. The remaining import licensing controls were removed on 18th October, 1962, with the exception of goods retained under control for reasons associated with the protection of the Australian industries concerned. These goods are broadly described as:—aluminium and aluminium alloy ingot and preliminary shapes; ball bearings; penicillin and streptomycin; timber; used, secondhand or disposal earthmoving and construction equipment.

The administration of the import controls is the responsibility of the Department of Trade, although the issue of import licences is a function of the Department of Customs and Excise at the various ports of the Commonwealth.

**9. Export Controls.**—(i) *Commodity Control*. Section 112 of the *Customs Act* provides that the Governor-General may, by regulation, prohibit the exportation of goods from Australia, and that this power may be exercised by—(a) prohibiting the exportation of goods absolutely; (b) prohibiting the exportation of goods to a specified place; and (c) prohibiting the exportation of goods unless prescribed conditions or restrictions are complied with. Goods subject to this export control are listed in the *Customs (Prohibited Exports) Regulations*.

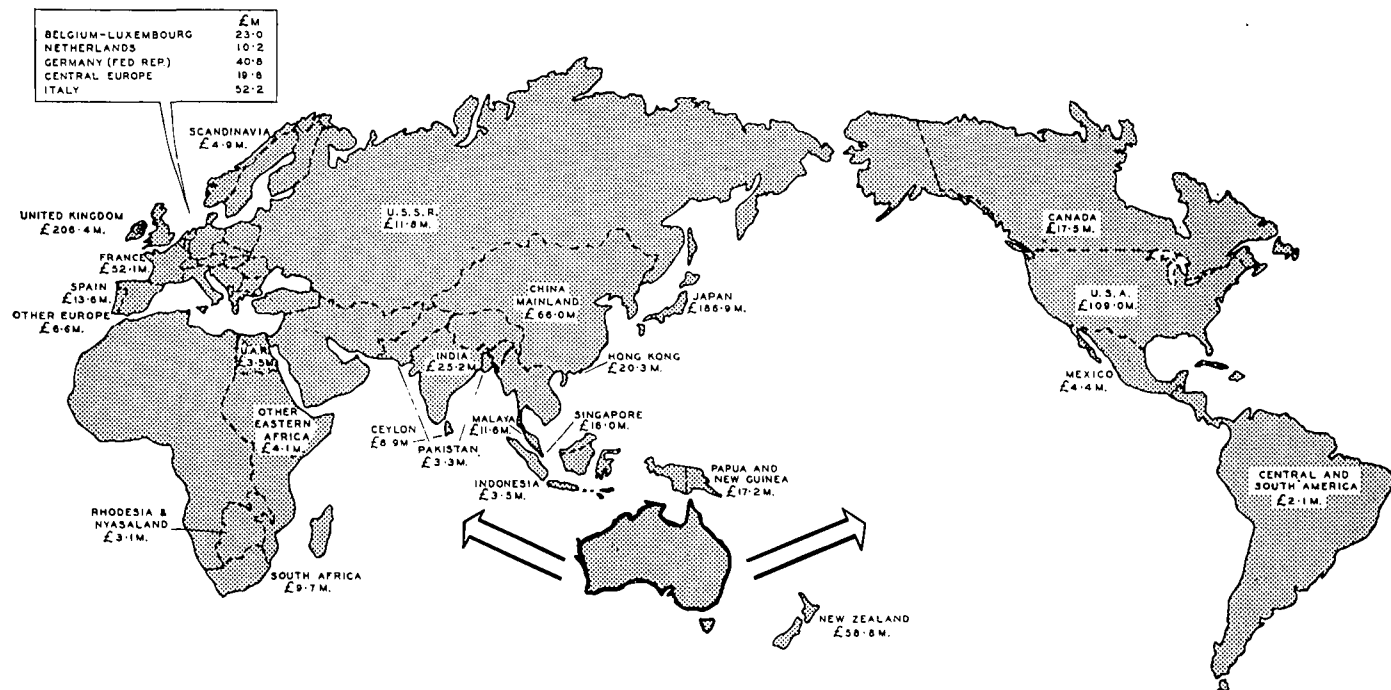
(ii) *Exchange Control*—*Banking Act 1959*. As an integral part of the framework of exchange control, a control over goods exported from Australia is maintained under the provisions of Part III. of the *Banking (Foreign Exchange) Regulations*, to ensure that the full proceeds of such goods are received into the Australian banking system and that these proceeds are received in the currency and in the manner prescribed by the Reserve Bank of

# OVERSEA TRADE: AUSTRALIA, 1936-37 to 1961-62



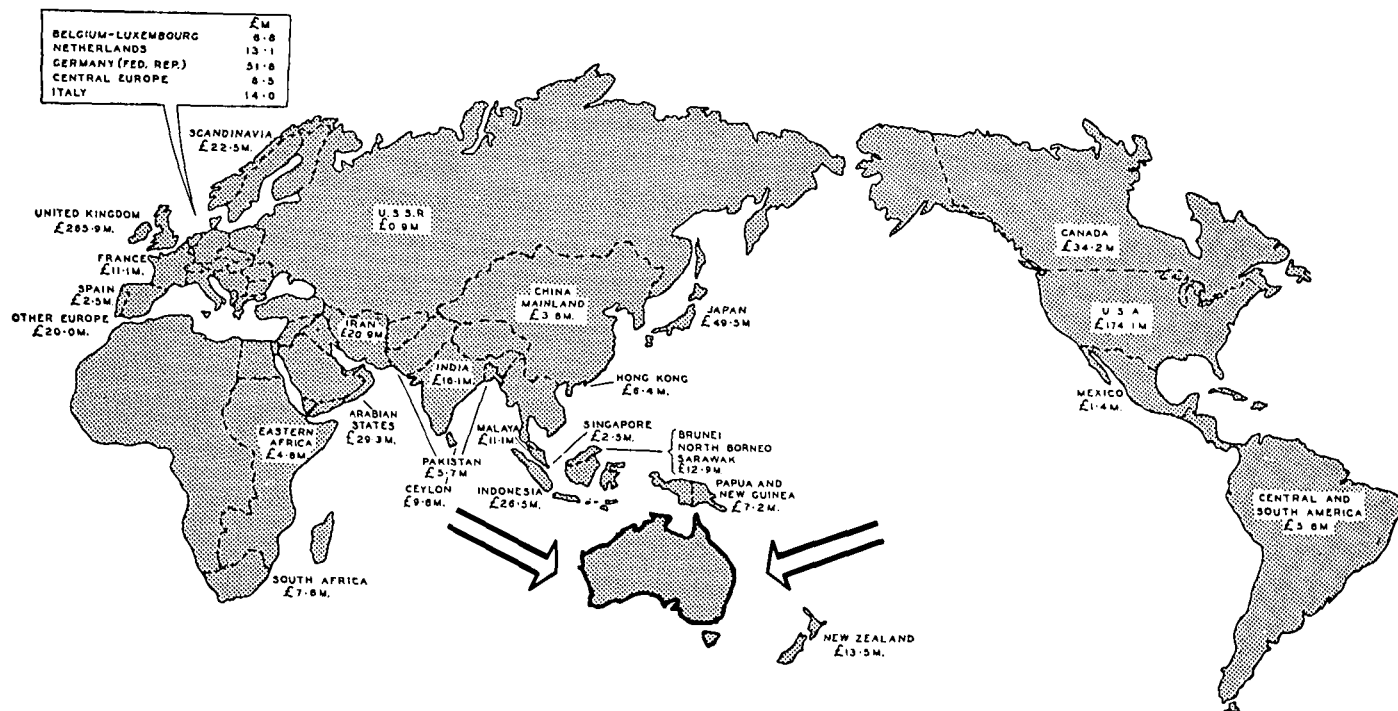


# EXPORTS FROM AUSTRALIA, 1961-62



(VALUES ARE EXPRESSED IN AUSTRALIAN CURRENCY  
F.O.B. PORT OF SHIPMENT)

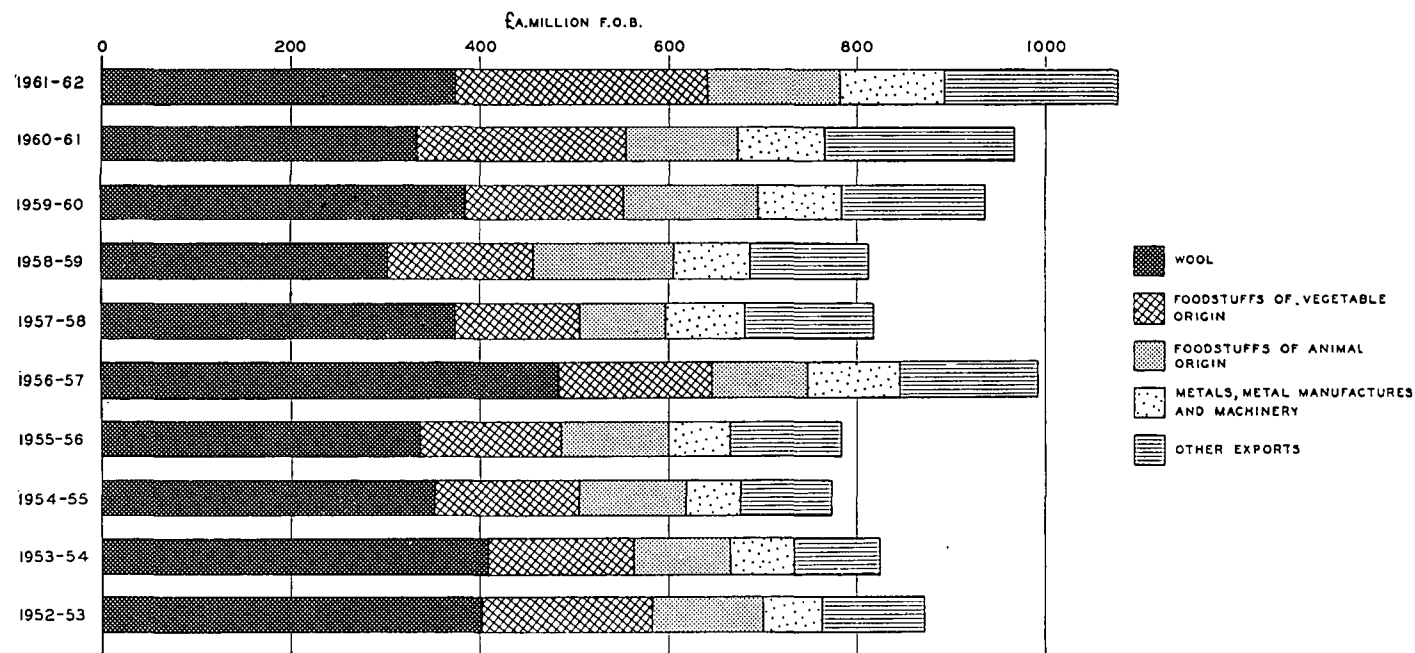
# IMPORTS TO AUSTRALIA, 1961-62



(VALUES ARE EXPRESSED IN AUSTRALIAN CURRENCY  
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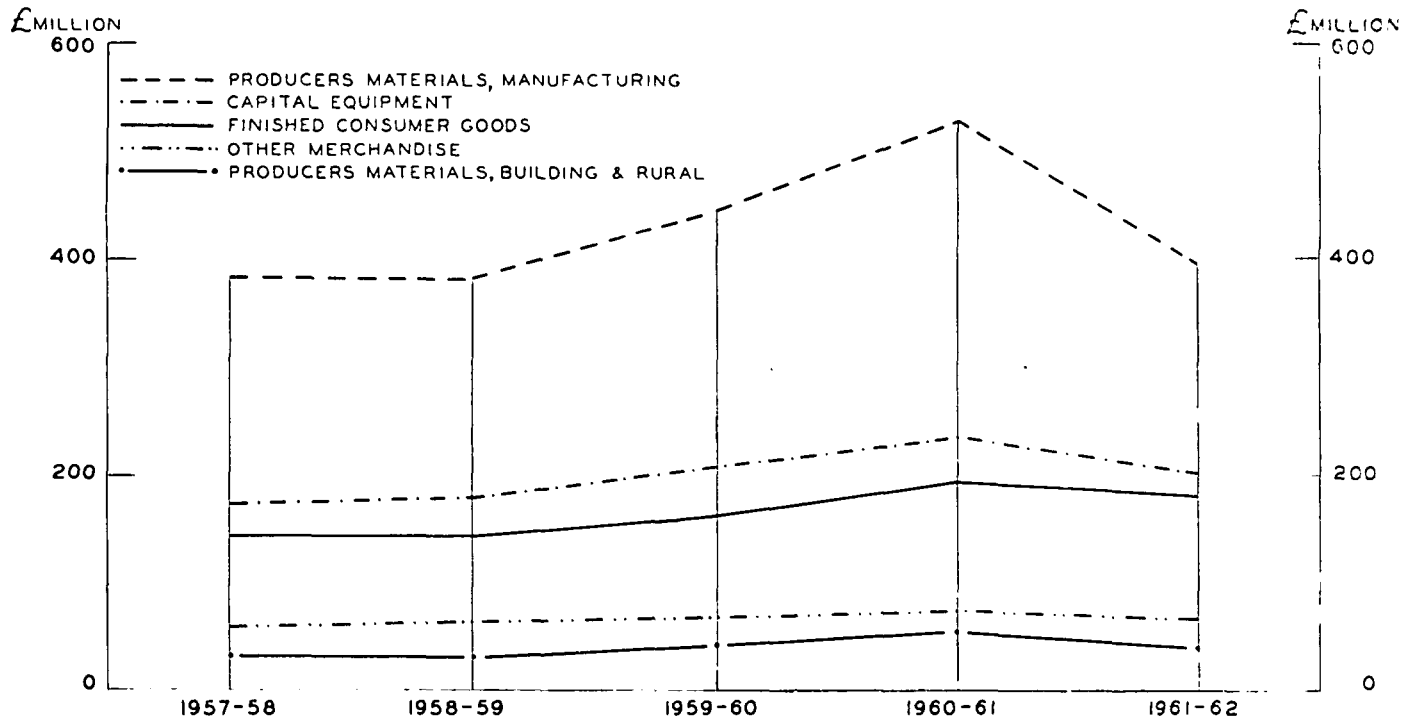
# EXPORTS OF PRINCIPAL COMMODITIES

AUSTRALIA, 1952-53 TO 1961-62



# IMPORTS BY ECONOMIC CLASS: AUSTRALIA

1957-58 TO 1961-62





Australia. This action is complementary to that taken under other parts of the Banking (Foreign Exchange) Regulations and under Part IV. of the *Banking Act* 1959 to control the movement out of Australia of capital in the form of securities, currency and gold.

Export licences are issued subject to terms and conditions specified in the Banking (Foreign Exchange) Regulations, and may be subject to such further terms and conditions as are determined, or may be free from terms and conditions. On the receipt in Australia by the Reserve Bank, or by a bank acting as agent for that Bank, of advice that the foreign currency has been paid to the Reserve Bank or to an agent of the Bank in payment for goods exported in accordance with a licence granted under the regulations, the Bank, or an agent of the Bank, pays the licensee, or such other person as is entitled to receive it, an amount in Australian currency equivalent to the foreign currency received. In addition to commercial transactions involving exports, movements of personal effects are also controlled. Persons leaving Australia for overseas are required to obtain licences to cover their bona fide baggage, personal effects and household effects in any individual case where the gold content thereof exceeds £A.125, or where jewellery and other articles of high intrinsic worth either exceed £A.1,000 in value or have not been the personal property of the passenger for at least twelve months.

10. *Trade Agreements.*—(i) *The United Kingdom.* The original United Kingdom and Australia Trade Agreement (Ottawa Agreement) was signed on 20th August, 1932. Under this agreement, Australia secured preferences in the United Kingdom market for a wide range of Australian export commodities, and in return assumed obligations in respect of tariff levels and the grant of preference to United Kingdom goods.

A new Trade Agreement, designed to replace the original agreement and correct the unbalance in benefits which had emerged in the 25 years of its operation, came into effect on 9th November, 1956. Briefly, this agreement preserves security for Australian exports in the United Kingdom market, but lowers the obligatory margins of preference which Australia extends to the United Kingdom (*see also* page 542).

(ii) *Canada.* The existing agreement between Australia and Canada came into force on 30th June, 1960, replacing an agreement signed on 3rd August, 1931. The agreement provides for Australian goods to receive British Preferential Tariff rates, or better, upon entry into Canada, and for Canada to maintain margins of preference in favour of Australia on a range of commodities. With some exceptions, the agreement specifies that Canadian goods shall receive the benefit of the British Preferential Tariff upon importation into Australia. The agreement continues subject to six months notice.

(iii) *New Zealand.* The existing trade agreement between Australia and New Zealand came into force on 1st December, 1933. The basis of the agreement is, generally, the mutual accord of British Preferential Tariff treatment. The exceptions to this general rule are listed in the schedules to the agreement.

(iv) *Federation of Rhodesia and Nyasaland.* During June, 1955, a trade agreement was negotiated with the Federation. Australia's principal undertaking was to grant an exclusive tariff preference to the Federation on unmanufactured tobacco, a concession formerly accorded only to Southern Rhodesia, under a trade agreement now terminated. The Federation accorded preferential tariff treatment on a wide range of Australian export products. The agreement continues subject to six months notice.

(v) *Federation of Malaya.* A trade agreement with the Federation was signed on 26th August, 1958, and came into force immediately. The agreement gives an assurance that Australia's traditional flour trade will be protected from subsidized or dumped competition. An undertaking is given that any tariff preferences Malaya accords will be extended also to Australia. Australia guarantees free entry for natural rubber so long as the Papua-New Guinea crop is absorbed, and the Federation is assured that natural rubber will not be at a disadvantage compared with synthetic rubber in respect of tariff or import licensing treatment. The agreement continues subject to six months notice.

(vi) *Japan.* An Agreement on Commerce between the Commonwealth of Australia and Japan was signed on 6th July, 1957, and formally ratified on 4th December, 1957. It was provided that the Agreement would remain in force until 5th July, 1960, and thereafter unless prior notice of termination should be given by either government.

Australia received certain specific undertakings. Japan agreed:—

- (a) To accord Australian wool the opportunity of competing in the global quota for wool for not less than 90 per cent. of the total foreign exchange allocation for wool each year, and not to restrict the total foreign exchange allocation for wool beyond the extent necessary to safeguard Japan's external financial position and balance of payments;
- (b) to take no action to vary the present level of duty on wool imports from Australia—initially for a period of three years from date of signature but subsequently extended;
- (c) to admit Australian wheat and barley on a competitive and non-discriminatory basis;
- (d) to accord Australian sugar the opportunity of competing for not less than 40 per cent. of the total foreign exchange allocation for sugar;
- (e) to include Australia as a permitted source of supply for beef tallow and cattle hides on the automatic approval (licensing) list;
- (f) to admit Australian dried skim milk on a competitive and non-discriminatory basis;
- (g) to make reasonable provision for the import of Australian dried vine fruits (raisins, currants and sultanias) in each year of the three-year period.

Since the Agreement was signed, Japanese imports of wool, tallow and dried fruits have been fully liberalized.

Provision exists for either country to suspend obligations under the agreement to the extent and for such time as may be necessary to prevent serious injury to domestic producers as a result of imports of like or directly competitive products from the other country.

The agreement provides that each country shall extend most-favoured-nation treatment to the other in respect of customs duties and similar charges and import and export licensing. Japan will not be entitled to claim the benefit of preferences accorded by Australia to Commonwealth countries and dependent territories.

It was agreed that before the end of the initial three-year period of the agreement, the two governments would explore the possibility of applying the General Agreement on Tariffs and Trade between the two countries. Discussions on this and other aspects of the Agreement were held in October, 1960, and October, 1961, when operation of certain undertakings under the Agreement was extended to September, 1962. Further discussions took place in Canberra in November, 1962. The Agreement itself continues until notice of termination is given by either party.\*

(vii) *Federal Republic of Germany.* An agreement signed in October, 1959, provided for annual import quotas for Australian wheat, coarse grains, frozen mutton and lamb, canned meat, fruits preserved in sugar, canned tropical fruit and wine. The agreement also provided for Australia to be included in all global tenders for whole and skim milk powder, butter, cheese, frozen beef, apples, pears, canned fruits, jam and casein.

The Agreed Minute on the export of flour from the Federal Republic of Germany to certain traditional Australian flour markets was also signed in October, 1959.

(viii) *Indonesia.* This agreement came into operation on 1st July, 1959. It records the desirability of expanding trade between Australia and Indonesia. It also gives special recognition to the importance of the flour trade from Australia to Indonesia. Australia recognizes the importance to Indonesia of its traditional export items to Australia. The agreement is subject to review for extension before 31st May, 1964.

(ix) *Other Countries.* Australia has entered into bilateral agreements with South Africa, Brazil, Czechoslovakia, France, Greece and Switzerland. Summaries of the texts

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\* For particulars of new trade agreement signed in Tokyo in August, 1963, see Appendix.

of these agreements were given in earlier issues of the Official Year Book. In 1951, Australia entered into a trade agreement with Israel under which each country undertook to accord most-favoured-nation treatment to imports from the other. A similar agreement with Iceland was concluded in 1952.

(x) *The General Agreement on Tariffs and Trade (G.A.T.T.)*. The General Agreement on Tariffs and Trade, of which Australia is an original member, is an international trade agreement which has been in operation since 1st January, 1948.

The objectives of the G.A.T.T. include the expansion of world trade and the raising of living standards throughout the world. Its members work towards these objectives by the reduction of tariffs and other barriers to trade, and by reduction of discrimination between countries through negotiations on a reciprocal and mutually advantageous basis. The essential features of the G.A.T.T. are the schedules of tariff concessions which its members have agreed to apply in tariff negotiations with each other, the application of most-favoured-nation treatment among its members, the avoidance of trade discrimination, and a code of agreed commercial policy rules for fair international trading.

G.A.T.T. is at present being applied pursuant to the Protocol of Provisional Application under which its members apply the commercial policy rules (contained in Part II. of the Agreement) to the fullest extent consistent with legislation existing at the time of becoming members.

Five series of tariff negotiations have been conducted under the provisions of the General Agreement. As a result of these negotiations, Australia has obtained tariff concessions on a number of products of which it is an actual or potential exporter to the individual countries concerned. These concessions were a result both of direct negotiation by Australia and of negotiations by other countries—in the latter case, benefits occur through the operation under the Agreement of the most-favoured-nation principle. It has not, however, been possible to secure many worthwhile concessions on foodstuffs and metals, and some concessions received on these products have been impaired by non-tariff barriers.

In 1954 and 1955, some of the provisions of the G.A.T.T. were revised. The revised G.A.T.T. contains tighter provisions on non-tariff barriers to trade. These barriers are in many respects most significant for some of the export items of interest to Australia. The revised G.A.T.T. also gives more freedom for countries like Australia to revise individual tariff items which had been "bound" against increase in tariff negotiations conducted under the G.A.T.T. In 1958, a Committee was set up to examine problems of expansion of trade in agricultural products and obstacle to the expansion of trade of under-developed countries, and in 1962, groups were set up to study the problems of trade in cereals and meat. Little progress has been made, however, in resolving the problems of expanding trade in agricultural products.

There are at present (January, 1963) 44 Contracting Parties to the Agreement, comprising most of the world's larger trading nations, and further countries are seeking accession or have some provisional association with the G.A.T.T. The Contracting Parties periodically hold plenary sessions to deal with the questions arising out of the administration of the Agreement. The 20th Session was held in October/November, 1962. A permanent Council has been set up to deal with urgent business arising between sessions and gives preliminary consideration to work arising at the sessions.

## § 2. Imperial Preference in the United Kingdom

1. *Preferential Tariff of the United Kingdom*.—A brief summary of the preferential tariff of the United Kingdom in the years prior to 1931 was published in Official Year Book No. 43, page 328. Further details were published in Official Year Book No. 48, page 474.

Since 30th October, 1947, Canada and the United Kingdom have, by an exchange of letters, recognized the rights of their respective Governments to reduce or eliminate the preferences they accord one another without prior consultation or consent.



In 1947, the United Kingdom and Australia adhered to the General Agreement on Tariffs and Trade, which prohibits increases in tariff preferences by either country. This rule, as is the case with the other provisions of the General Agreement, may be waived by a two-thirds majority of the signatories to the agreement.

2. *The Australia-United Kingdom Trade Agreement.*—The provisions and history of the original Australia-United Kingdom Agreement (Ottawa Agreement) were published in Official Year Book No. 43, page 329.

The major provisions of the current agreement (operative since 9th November, 1956) which affect Australia's position in the United Kingdom market are as follows.

- (a) Continued free entry for those Australian goods in which Australia has an active trade interest, and which were accorded free entry immediately prior to the new agreement.
- (b) A guaranteed minimum margin of preference in the United Kingdom Tariff on all items so treated in the previous agreement plus an extension of this guarantee to several items on which the margin of preference, although in force, was not bound to Australia. This latter group comprised currants, egg powder and egg pulp, jam, rice, tomato juice, pineapple juice and coconut oil. A selection of the items on which Australia receives a bound margin of preference and the extent of that preference is as follows (all values in sterling):—butter (15s. a cwt.); cheese (15 per cent. *ad val.*); canned peaches, pears and apricots (12 per cent. *ad val.*); raisins (8s. 6d. a cwt.); eggs in shells (1s. to 1s. 9d. a great hundred (10 dozen)); milk powder (6s. a cwt.); sweetened condensed milk (5s. a cwt.); apples (4s. 6d. a cwt. in season); honey (5s. a cwt.); flour (10 per cent. *ad val.*); light wine (2s. a gallon); heavy wine (10s. a gallon at present duty rate).
- (c) All rights under the Ottawa Agreement in respect of meat are maintained.
- (d) Australia receives an assured wheat market of at least 750,000 tons f.a.q. wheat or flour equivalent annually. Any Australian high-protein wheat sold to the United Kingdom is not counted against this obligation.
- (e) There is provision for full consultation between the two Governments on such matters as agricultural production and marketing, transport and communication, the disposal of surpluses and restrictive business practices.
- (f) The agreement shall be the subject of re-negotiation between the two Governments during the fifth year of its operation. (By agreement between the two governments this re-negotiation has been postponed.)

### § 3. Trade Commissioner Service

The stimulation of interest abroad in Australia's exports is an important government activity in which the Australian Trade Commissioner Service plays a prominent part. The origin of the Service dates back to 1921, when the first Trade Commissioner was appointed to Shanghai. In the following year, a second Commissioner was appointed to Singapore. These appointments, however, were terminated shortly afterwards.

In 1929, a Trade Commissioner post was opened at Toronto. Wellington was opened five years later. The *Trade Commissioners Act* 1933 provided for the establishment of an Australian Government Trade Commissioner Service. In 1935, official trade representation was established at Batavia (now Djakarta), Shanghai and Tokyo. Cairo, New York and Calcutta posts were opened between 1937 and 1939 and the Singapore post was established in 1941.

After the War, the service increased steadily to take care of Australia's expanding export interests and the growing diversity of our export commodities. By December, 1962, there were 37 Trade Commissioner posts in 28 countries, new posts having been opened in Beirut (Lebanon), August, 1961, Lima (Peru), October, 1961, Caracas (Venezuela), March, 1962 and Athens (Greece), July, 1962. With the continuing need to take advantage of new markets, the opening of additional posts is being considered.

In 1957, Australia's official commercial representation overseas was extended by the introduction of a system of government Trade Correspondents. These men, who as a rule already reside in particular centres overseas, are engaged on a part-time basis to carry out market research, arrange introductions between buyer and seller, and generally promote Australia's trade interests in the same way as Trade Commissioners. Each Trade Correspondent operates under the general direction of the nearest Trade Commissioner.

The first two Australian Trade Correspondents were appointed in 1957 at Montevideo (Uruguay) and Nairobi (Kenya) (since replaced by a Trade Commissioner). In 1958, four more were appointed at Suva, Honolulu, Mauritius and Mexico City. Additional appointments have been made at Taiwan, Malta and Madrid. In addition, Marketing Officers have been appointed at Los Angeles and Rangoon. Further limited expansion of this form of commercial representation is contemplated.

Trade Commissioners and, to a lesser extent, Trade Correspondents, are responsible for commercial intelligence in their territories. Particular facilities provided for Australian exporters and export organizations include the following:—

- (a) Surveys of market prospects;
- (b) Advice on selling and advertising methods;
- (c) Arranging introductions with buyers and agents;
- (d) Providing reports on the standing of overseas firms;
- (e) Advice and assistance to business visitors;
- (f) Helping to organize and carry through trade missions, trade displays, newspaper supplements and other promotion and publicity media;
- (g) Providing information on import duties, import licensing, economic conditions, quarantine and sanitary requirements, and other factors affecting the entry and sale of goods;
- (h) Helping to attract desirable investment.

In some countries, Trade Commissioners also participate in inter-governmental negotiations in the economic and commercial fields. In certain countries where there is no diplomatic or consular mission (Trinidad, Hong Kong, the Federation of Rhodesia and Nyasaland, Lebanon, Peru and Venezuela), he is called upon to act as the Australian representative.

Trade Commissioners usually enter the Service from either the commercial world or the public service, and applications for entry into the Service are called for periodically by public advertisement. In the more important posts, it is the practice for the Trade Commissioner to be supported by an Assistant Trade Commissioner, who normally qualifies at a later stage for appointment as a Trade Commissioner.

The Trade Commissioner Service is administered by the Commonwealth Department of Trade (as distinct from the diplomatic and consular services, administered by the Department of External Affairs), but in countries where there is an Australian diplomatic or consular mission it is the practice for Trade Commissioners to be attached to the mission and to hold an appropriate diplomatic or consular rank (Commercial Counsellor, Commercial Secretary or Commercial Attaché).

The overseas trade representation is shown in Chapter XXVIII. International Relations.

#### § 4. Australian Trade Missions

Over the last decade, Trade Missions have become an integral part of the Commonwealth Government's campaign to develop and expand Australia's export trade.

They have proved successful in creating an awareness, especially in new markets, of Australia as a producer of quality primary and secondary products, in establishing Australia as a source of supply, and in establishing a basis for long-term business, as well as producing valuable export business from "on the spot" trading. Trade Missions have been directly responsible for substantial and continuing increases in our export earnings.

Since 1954, Australia has sent overseas fourteen major Trade Missions, three Trade Ships, five Trade Survey Missions and two Specialized Selling Missions. The countries visited include South Africa, East Africa, West Africa, the Rhodesias, Singapore, Malaya, India, Ceylon, Thailand, Hong Kong, the Philippines, Japan, British North Borneo, New Guinea, the Solomons, Fiji, New Caledonia, United States of America, Canada, Pakistan, New Zealand, countries on the Arabian Gulf, Egypt, Saudi Arabia, Jordan, Lebanon, Syria, Turkey, Cyprus, Greece, Malta, Venezuela, Colombia, Ecuador, Peru, Chile, Argentina, Uruguay, Brazil and the West Indies. Some of these countries have been visited more than once.

There are different types of trade missions. The Trade Survey Mission is designed purely to carry out a survey of a particular area, obtain commercial information, assess the market potential for Australian commodities, and recommend a programme of trade publicity and promotion in the area. This may or may not include the organization of a full scale trade mission to visit the area. A trade survey mission usually comprises five or six members.

The major Trade Mission usually comprises between 20 and 40 businessmen from all sectors of commerce, agriculture, finance and industry, together with Department of Trade representatives. The function of major Trade Missions is firstly to sell, and secondly to publicize and promote Australia as an exporting nation. These missions rely entirely on the selling and negotiating capacities of the businessmen who participate.

More recently, the Department has introduced a new type of specialized trade mission. These missions are smaller and are confined to one industry at a time. Recently a Building Industry Materials Mission visited Singapore and Malaya, and a Food Survey Mission visited Japan early in 1963.

#### § 5. Export Payments Insurance Corporation

The *Export Payments Insurance Corporation Act* No. 32 of 1956 established the Corporation with the objective of protecting Australian exporters against risks of loss arising from non-payment of their overseas accounts.

The Corporation is charged to be self-supporting, that is, over a period it is to operate at neither a profit nor a loss. It operates on principles similar to those of any other form of insurance, in as much as in return for payment of a premium the exporter can claim on the Corporation in the event of non-payment by his buyer for any of the reasons set out in his policy. There is no overlap with normal insurance facilities, since the Corporation does not cover risks which can normally be insured with commercial insurers.

The main risks of loss against which the Corporation insures are the "commercial" risks of the insolvency or protracted default of the buyer and "political" risks. The latter include exchange transfer delays; the imposition of government regulations which prevent the import of goods into the buyer's country; war or revolution in the buyer's country; and generally any other cause not being within the control of the exporter or the buyer, and which arises from events occurring outside Australia. Prior to December, 1959, the Corporation could extend cover only to 85 per cent. for all types of risks insured. From that time, however, cover on the "political" risks was increased to a maximum of 90 per cent. for the amount of loss in the pre-shipment period and a maximum of 95 per cent. in the post-shipment period. The cover for "commercial" risks remains at 85 per cent.

The initial capital of the Corporation was £500,000 and the maximum liability limit of the Corporation was £25,000,000. In April, 1959, these limits were doubled to enable the Corporation to meet fully demands of the Australian exporters for this facility.

The Corporation itself does not provide finance for exporters, but the stated policy of the trading banks is that E.P.I.C. guarantees considerably reduce the risks involved in the export trade, and this can assist the exporter in obtaining such finance as he requires.

Since the first policy was issued in September, 1957, Australian exporters have made increasing use of the facilities of the Corporation. On 31st March, 1963, the Corporation had 363 policies current to the value of over £42,500,000. The Corporation has issued policies covering exports to over 142 countries, and has insured a wide range of Australian exports.

A Consultative Council of leading figures in the fields of banking, commerce and industry has been appointed to advise the Corporation on its activities.

## § 6. European Economic Integration

1. *European Economic Community.*—(i) *Origin and Aims.* The European Economic Community, often referred to as the European Common Market or simply as the Common Market, was established under the Treaty of Rome which was signed on 25th March, 1957, and entered into force on 1st January, 1958. The members of the Community are Belgium, France, the Federal Republic of Germany, Italy, Luxembourg and the Netherlands (commonly referred to as the Six).

The preamble to the Treaty of Rome, which states the general aims of its signatories, begins by recording their determination to establish the foundations of an ever-closer union among the European peoples. Article 1. states: "It shall be the aim of the Community, by establishing a Common Market and progressively approximating the economic policies of Member States, to promote throughout the Community a harmonious development of economic activities, a continuous and balanced expansion, an increased stability, an accelerated raising of the standard of living and closer relations between its Member States."

For these purposes, the Treaty provides for the elimination, over a transitional period of 12 to 15 years (commencing on 1st January, 1958), of all tariffs, quantitative restrictions and other trade barriers among member states. At the same time, a common external tariff and a common commercial policy is to be instituted towards third countries, and a common agricultural policy is to be established. Parallel with these measures, the Treaty requires action to be taken in a number of fields towards ensuring the integration of the six economies. The Treaty also provides for the association of certain overseas countries with the Community, with a view to increasing trade and pursuing joint efforts towards economic and social development. These are the countries and territories which, when the Treaty was signed, had a special relationship with Belgium, France, Italy or the Netherlands. The arrangements for this association, which are set out in the Treaty itself, are supplemented by an Implementing Convention. The original Implementing Convention expired on 31st December, 1962, and a new one has been drawn up.

(ii) *Applications to join E.E.C.* Any European state may apply to join the E.E.C. (Article 237). In addition, any country or union of states or an international organization may seek association with the Community (Article 238). Since the Treaty was signed, one country, Greece, has become associated with the E.E.C., but in a form which looks toward eventual full membership.

Britain commenced negotiations in 1961 with the member states to determine the conditions on which it might enter the Community. Other members of the European Free Trade Association (*see below*), as well as Ireland, Spain and Turkey have applied, in some cases for full membership, in other cases to enter into association. Britain also entered into negotiations with a view to joining the European Coal and Steel Community and the European Atomic Energy Community (*see below*) at the same time as the E.E.C.

In January, 1963, negotiations concerning Britain's entry into the E.E.C. were discontinued.

(iii) *Institutions of E.E.C.* The principal institutions of the Community are as follows:—a Council of Ministers (one from each member State), which makes decisions on basic policy, deciding many things on proposals from the Commission; the European Economic Commission (of nine members, each appointed for four years), which acts in the general interest of the Community through the formulation of proposals for the Council, by the exercise of

certain powers of decision and by ensuring the application of the provisions of the Treaty; a European Assembly (known as the European Parliament) which is at present composed of 142 members drawn from the national Parliaments of the Six and which, besides asking questions of the Commission and debating its annual report, has the power to remove the Commission by a two-thirds vote of censure; the Court of Justice, which interprets the Treaty and regulations of the E.E.C. and acts also for the European Coal and Steel Community, and Euratom (*see below*).

(For details of Australia's trade with the E.E.C. countries, *see pp. 551-2.*)

**2. European Coal and Steel Community.**—The European Coal and Steel Community (E.C.S.C.), which came into operation on 10th August, 1952, was the first effort at economic integration (though confined to coal and steel) made by the six European States which later set up the E.E.C. It continues in existence alongside the E.E.C.

**3. Euratom.**—The third of the three "European Communities" of Belgium, France, the Federal Republic of Germany, Italy, Luxembourg and the Netherlands, is the European Atomic Energy Community ("Euratom"). The treaty establishing Euratom, which was signed at the same time as the treaty to establish the European Economic Community and which also entered into effect on 1st January, 1958, provides for the co-ordination of nuclear research and power projects among the Six.

**4. European Free Trade Association.**—After the breakdown at the end of 1958 of the negotiations to set up an industrial free trade area in Western Europe, seven countries which had not joined the E.E.C. met together and formed the European Free Trade Association (E.F.T.A.). This Association, which entered into effect in 1960, comprises Austria, Denmark, Norway, Portugal, Sweden, Switzerland and the United Kingdom. Finland is an associate member of E.F.T.A. The members of this Association have agreed to eliminate in ten years tariffs and other obstacles to their trade in industrial (i.e. non-agricultural) products with each other, but each of them preserves its own external tariff against non-member countries. In June, 1961, the members of E.F.T.A. agreed that "the Association would be maintained at least until satisfactory arrangements have been worked out in negotiations to meet the various legitimate interests of all Members of E.F.T.A., and thus enable them all to participate from the same date in an integrated European market."

(For details of Australia's trade with E.F.T.A. countries, *see pp. 551-2.*)

## § 7. Method of Recording Imports and Exports

**1. Source of Statistics.**—Oversea trade statistics are compiled from documents obtained under the *Customs Act* 1901-1960 and supplied to the Commonwealth Bureau of Census and Statistics by the Department of Customs and Excise. Certain items are excluded for which customs entries are not required. *See Sub-para. (viii) Balance of Payments, page 548.*

**2. Customs Area.**—The area to which all oversea trade statistics issued by this Bureau apply is the whole area of the Commonwealth of Australia. Non-contiguous territories are treated as outside countries, and trade transactions between Australia and these non-contiguous territories are part of the oversea trade of Australia. Such transactions are shown separately, i.e. the trade of Australia with each particular country is separately recorded and tabulated.

**3. The Trade System.**—There are two generally accepted systems of recording oversea trade statistics, namely (a) special trade and (b) general trade. Statistics of both are published by the Bureau, although greater emphasis is placed on general trade. The Statistical Office of the United Nations defines the two systems as follows.

"*System of Trade.* Two systems of recording trade are in common use, differing mainly in the way warehoused and re-exported goods are recorded.

- (a) *Special Trade.* Special imports are the combined total of imports directly for domestic consumption (including transformation and repair) and withdrawals from bonded warehouses or free zones for domestic consumption. Special exports comprise exports of national merchandise, namely, goods wholly or partly produced or manufactured in the country, together with exports of nationalized goods. (Nationalized goods are goods which, having been included in special imports, are then exported without transformation.)
- (b) *General Trade.* General imports are the combined total of imports directly for domestic consumption and imports into bonded warehouse or free zone. General exports are the combined total of national exports and re-exports. Re-exports, in the general trade system, consist of the outward movement of nationalized goods plus goods which, after importation, move outward from bonded warehouse or free zone without having been transformed.

*Direct transit trade*, i.e., goods merely being transhipped or moving through the country for purposes of transport only, is excluded from the statistics of both special and general trade."

The tables which follow refer to general trade, except for those appearing in § 17, para. 2, which refer to imports cleared for home consumption.

4. **Statistical Classification of Imports and Exports.**—Statistics of overseas imports and exports from which the summary tables in this issue of the Official Year Book have been extracted were compiled according to the revised classification which came into operation on 1st July, 1945. This classification is designed to allow for the inclusion of items which become significant with varying trade conditions, and in 1961–62 provided for over 3,000 import items and over 1,500 export items.

5. **The Trade Year.**—From 1st July, 1914, the statistics relating to overseas trade have been shown according to the financial year (July to June). Prior to that date, the figures related to the calendar year. A table is included in § 18 showing the total value of imports and exports in the calendar years 1958 to 1962 inclusive.

6. **Valuation.**—(i) *Imports.* The recorded value of goods imported from countries beyond Australia as shown in the following tables represents the amount on which duty is payable or would be payable if the duty were charged *ad valorem*.

Section 154 (1) of the *Customs Act* 1901–1960 provides that "when any duty is imposed according to value, the value for duty shall be the sum of the following:—

- (a) (i) the actual money price paid or to be paid for the goods by the Australian importer plus any special deduction, or
- (ii) the current domestic value of the goods, whichever is the higher; and
- (b) all charges payable or ordinarily payable for placing the goods free on board at the port of export."

"Current domestic value" is defined as "the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of exportation of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country". *The recorded values of Australia's imports, as shown throughout this and other chapters of this issue of the Official Year Book, are therefore "transaction value (f.o.b.)" or "domestic value (f.o.b.)", whichever is the higher. These values are f.o.b. port of shipment Australian currency.*

(ii) *Exports.* Since 1st July, 1937, the following revised definitions of f.o.b. values have been adopted for exports generally.

- (a) Goods sold to overseas buyers before export—the Australian f.o.b. port of shipment equivalent of the price at which the goods were sold (e.g., as regards wool, the actual price paid by the overseas buyer plus the cost of all services incurred by him in placing the wool on board ship).

- (b) Goods shipped on consignment—the Australian f.o.b. port of shipment equivalent of the current price offering for similar goods of Australian origin in the principal markets of the country to which the goods were dispatched for sale (as regards wool, the f.o.b. port of shipment equivalent of the current price ruling in Australia will normally provide a sufficient approximation to the f.o.b. port of shipment equivalent of the price ultimately received).

Exporters are required to show all values in terms of Australian currency and to include the cost of containers.

An account of the bases of valuation in operation prior to 1st July, 1937, was given on page 469 of Official Year Book No. 39.

7. *Inclusions and Exclusions.*—(i) *Stores.* Prior to 1906, goods shipped in Australian ports on oversea vessels as ships' stores were included as exports. From 1906, ships' and subsequently aircraft stores have been specially recorded as such, and omitted from the tabulation of exports. A table showing the value of these stores shipped each year since 1956–57 is shown on page 562.

(ii) *Outside Packages.* Outside packages (containers, crates, etc.) have always been included as a separate item in the tabulation of imports, but, except for those received from the United Kingdom, a classification according to country of origin has been available only since 1950–51. For exports, however, the value recorded for each item includes the value of the outside package.

(iii) *Trade on Government Account.* Imports and exports on Government account are treated as normal transactions and are an integral part of oversea trade transactions.

(iv) *Currency.* Notes and coins are included in the oversea trade statistics at their commodity value only.

(v) *Gold Content of Ores and Concentrates.* The value of ores and concentrates imported and exported includes the value of the gold content. The latter is not recorded separately for purposes of inclusion in imports and exports of gold.

(vi) *Migrants' Effects.* Migrants' effects are included in imports and exports.

(vii) *Direct Transit Trade.* Particulars of direct transit trade through Australia are not recorded.

(viii) *Balance of Payments.* Statistics relating to oversea trade do not measure Australia's total balance of payments during the period shown. Particulars of other transactions entering into the balance of payments, for example, freight charges and oversea travel, payment of dividends, profits and interest and government expenditure overseas are provided in the statistical bulletin *Balance of Payments: Quarterly Summary* issued by the Commonwealth Statistician (see also § 20, p. 567). For items such as naval ships, merchant vessels trading overseas, aircraft for use on oversea routes, uranium and certain materials for inter-governmental defence projects, no customs entries are recorded, but these transactions are taken into account in estimating the balance of payments.

8. *Countries.*—(i) *Imports.* From 1st January, 1905, in addition to the record of the countries whence goods arrived directly in Australia, a record of the countries of their origin was kept, as it was considered that classification of imports according to country of origin was of greater interest and value than classification according to country of shipment. Up to and including the year 1920–21, imports continued to be classified both according to country of shipment and according to country of origin, but the former tabulation was discontinued as from the year 1921–22. "Country of origin" referred to in import tables should be taken to mean the country of production.

(ii) *Exports.* In the export sections of tables in this chapter, "country" refers to the country to which the goods were consigned so far as this can be determined at the time of export.

9. Quantities.—Where quantities are shown, they are generally, but not invariably, expressed in terms of the normal trade unit. Where “cental” is used, the unit is equivalent to 100 lb. avoidupois. Quantities are not tabulated in respect of items for which there is no appropriate unit of quantity (e.g. an item which covers a number of commodities and cannot be recorded under a uniform unit of quantity).

10. Pre-federation Records.—In the years preceding Federation each State recorded its trade independently, and in so doing did not distinguish other Australian States from foreign countries. The aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, but the results obtained may be subject to error, since past records of values and the direction of imports and exports were not on uniform lines. Imports and exports for years prior to Federation may be found in issues of the Official Year Book prior to No. 41. On the introduction of the *Customs Act* 1901, the methods of recording values were made uniform throughout the States.

### § 8. Total Oversea Trade

1. Including Gold.—The following table shows the total trade (including gold) of Australia with overseas countries from 1901 to 1961–62. The period 1901 to 1955–56 has been divided into five-year periods, and the figures shown represent the annual averages for the periods specified. Figures for the individual years were published in Official Year Book No. 40 and earlier issues, but figures for imports in issues prior to No. 37 were expressed in British currency.

VALUE OF OVERSEA TRADE: AUSTRALIA  
(INCLUDING GOLD)  
(£A. f.o.b.)

Period	Imports	Exports	Total	Excess of exports(+) or imports(–)	Value per head of population		
					Imports	Exports	Total
Annual Average—	£'000	£'000	£'000	£'000	£	£	£
1901 to 1905 ..	35,689	51,237	86,926	+ 15,548	9.1	13.1	22.2
1906 to 1910 ..	46,825	69,336	116,161	+ 22,511	11.0	16.3	27.3
1911 to 1915–16 ..	66,737	74,504	141,241	+ 7,767	13.8	15.4	29.2
1916–17 to 1920–21	91,577	115,066	206,643	+ 23,489	17.4	21.9	39.3
1921–22 to 1925–26	124,404	134,545	258,949	+ 10,141	21.1	22.9	44.0
1926–27 to 1930–31	119,337	131,382	250,719	+ 12,045	18.6	20.5	39.1
1931–32 to 1935–36	73,798	120,958	194,756	+ 47,160	11.1	18.1	29.2
1936–37 to 1940–41	123,553	157,610	281,163	+ 34,057	17.8	22.7	40.5
1941–42 to 1945–46	211,514	163,955	375,469	– 47,559	29.1	22.4	51.5
1946–47 to 1950–51	449,273	571,430	1,020,703	+ 122,157	57.2	72.7	129.9
1951–52 to 1955–56	782,794	786,128	1,568,922	+ 3,334	87.8	88.2	176.0
Year—							
1952–53.. ..	514,109	871,272	1,385,381	+ 357,163	58.9	99.7	158.6
1953–54.. ..	681,609	828,332	1,509,941	+ 146,723	76.6	93.0	169.6
1954–55.. ..	843,742	774,164	1,617,906	– 69,578	92.8	85.2	178.0
1955–56.. ..	821,088	781,864	1,602,952	– 39,224	88.2	83.9	172.1
1956–57.. ..	718,991	992,906	1,711,897	+ 273,915	75.4	104.2	179.6
1957–58.. ..	791,940	817,946	1,609,886	+ 26,006	81.3	83.9	165.2
1958–59.. ..	796,599	811,463	1,608,062	+ 14,864	80.1	81.6	161.7
1959–60.. ..	927,091	937,682	1,864,773	+ 10,591	91.2	92.3	183.5
1960–61.. ..	1,087,577	968,843	2,056,420	– 118,734	104.6	93.2	197.8
1961–62.. ..	884,746	1,077,284	1,962,030	+ 192,538	83.4	101.6	185.0

(a) Prior to 1906, ship's stores were included in exports. For the value of such goods shipped on overseas vessels and aircraft during each of the years 1957–58 to 1961–62, see table on p. 562.

A graph showing the overseas trade of Australia from 1936–37 to 1961–62 appears on page 533.



2. **Excluding Gold.**—The fluctuations in recent years in merchandise trade (including silver and bronze as merchandise) are shown more clearly in the following table, from which all gold movements have been excluded.

**VALUE OF OVERSEA TRADE: AUSTRALIA**  
(EXCLUDING GOLD)  
(£A. f.o.b.)

Year	Imports	Exports	Total	Value per head of population		
				Imports	Exports	Total
	£'000	£'000	£'000	£	£	£
1957-58 ..	789,308	811,594	1,600,902	81.0	83.3	164.3
1958-59 ..	794,422	808,184	1,602,606	79.9	81.2	161.1
1959-60 ..	924,568	927,471	1,852,039	91.0	91.2	182.2
1960-61 ..	1,085,374	928,884	2,014,258	104.5	89.4	193.9
1961-62 ..	882,598	1,068,307	1,950,905	83.2	100.7	183.9

**§ 9. Direction of Oversea Trade**

1. **According to Countries.**—(i) *Values.* The following table shows the value of Australian imports and exports during each of the years 1959-60 to 1961-62 according to country of origin and consignment respectively.

**VALUES OF AUSTRALIAN IMPORTS AND EXPORTS: COUNTRIES OF ORIGIN OR CONSIGNMENT**  
(EXCLUDING GOLD)  
(£A. '000 f.o.b.)

Country	Imports			Exports		
	1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
<b>Commonwealth Countries—</b>						
United Kingdom ..	330,302	340,531	265,917	237,946	200,063	205,876
Australian Territories ..	11,226	11,217	10,912	18,236	19,848	19,487
Canada ..	29,653	45,664	34,158	13,905	17,027	17,524
Ceylon ..	11,238	10,166	9,821	7,711	7,180	8,947
India ..	18,180	22,707	16,070	16,219	13,884	25,222
Malaya, Federation of ..	17,828	15,195	11,098	12,681	11,993	11,560
New Zealand ..	15,319	16,965	13,237	54,273	61,890	58,648
Singapore ..	1,560	1,856	2,489	10,948	12,185	15,987
Other Commonwealth Countries	39,988	40,348	38,441	39,696	42,481	43,924
<b>Total, Commonwealth Countries</b>	<b>475,294</b>	<b>504,649</b>	<b>402,143</b>	<b>411,615</b>	<b>386,551</b>	<b>407,175</b>
<b>Foreign Countries—</b>						
Arabian States ..	36,490	35,517	29,272	2,597	3,762	3,527
Belgium-Luxembourg ..	8,470	11,176	6,810	24,296	22,761	22,981
China, Republic of—Mainland	4,419	3,974	3,811	16,132	39,857	65,956
France ..	13,743	16,722	11,085	60,325	51,072	50,485
Germany, Federal Republic of	53,869	66,176	51,832	38,333	26,755	40,834
Indonesia ..	29,438	28,105	26,510	3,221	5,133	3,548
Italy ..	13,011	15,779	14,028	46,574	47,725	52,180
Japan ..	41,533	65,445	49,495	134,674	161,488	186,905
Netherlands ..	18,682	17,010	13,142	5,856	6,258	9,652
Sweden ..	14,286	17,930	16,655	2,146	2,255	2,124
United States of America ..	150,031	217,041	174,080	75,927	72,471	108,991
Other Foreign Countries ..	64,503	84,976	82,830	99,963	94,215	107,207
<b>Total, Foreign Countries</b>	<b>448,475</b>	<b>579,851</b>	<b>479,550</b>	<b>510,044</b>	<b>533,752</b>	<b>654,390</b>
<b>Country unknown ..</b>	<b>799</b>	<b>874</b>	<b>905</b>	<b>5,812</b>	<b>8,581</b>	<b>6,742</b>
<b>Total ..</b>	<b>924,568</b>	<b>1,085,374</b>	<b>882,598</b>	<b>927,471</b>	<b>928,884</b>	<b>1,068,307</b>

(ii) *Proportions.* The following table expresses the values shown in the preceding tables as percentages of total imports or exports.

**VALUES OF AUSTRALIAN IMPORTS AND EXPORTS: PROPORTIONS BY COUNTRIES OF ORIGIN OR CONSIGNMENT**

(EXCLUDING GOLD)

(Per Cent. of Total)

Country	Imports			Exports		
	1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
<b>Commonwealth Countries—</b>						
United Kingdom .. ..	35.72	31.38	30.13	25.65	21.54	19.27
Australian Territories ..	1.21	1.03	1.24	1.97	2.14	1.82
Canada .. ..	3.21	4.21	3.87	1.50	1.83	1.64
Ceylon .. ..	1.22	0.94	1.11	0.83	0.77	0.84
India .. ..	1.97	2.09	1.82	1.75	1.50	2.36
Malaya, Federation of ..	1.93	1.40	1.36	1.37	1.29	1.08
New Zealand .. ..	1.66	1.56	1.49	5.85	6.66	5.49
Singapore .. ..	0.17	0.17	0.28	1.18	1.31	1.50
Other Commonwealth Countries	4.32	3.72	4.26	4.28	4.57	4.12
<i>Total, Commonwealth Countries</i>	<i>51.41</i>	<i>46.50</i>	<i>45.56</i>	<i>44.38</i>	<i>41.61</i>	<i>38.12</i>
<b>Foreign Countries—</b>						
Arabian States .. ..	3.95	3.27	3.32	0.28	0.41	0.33
Belgium-Luxembourg ..	0.91	1.03	0.77	2.62	2.45	2.15
China, Republic of—Mainland	0.48	0.36	0.43	1.74	4.29	6.17
France .. ..	1.49	1.54	1.26	6.50	5.50	4.73
Germany, Federal Republic of	5.83	6.10	5.87	4.13	2.88	3.82
Indonesia .. ..	3.18	2.59	3.00	0.35	0.55	0.33
Italy .. ..	1.41	1.45	1.59	5.02	5.14	4.88
Japan .. ..	4.49	6.03	5.61	14.52	17.39	17.50
Netherlands .. ..	2.02	1.57	1.49	0.63	0.67	0.90
Sweden .. ..	1.55	1.65	1.89	0.23	0.24	0.20
United States of America ..	16.23	20.00	19.72	8.19	7.80	10.20
Other Foreign Countries ..	6.97	7.83	9.39	10.78	10.15	10.04
<i>Total, Foreign Countries</i>	<i>48.51</i>	<i>53.42</i>	<i>54.34</i>	<i>54.99</i>	<i>57.47</i>	<i>61.25</i>
Country unknown .. ..	0.08	0.08	0.10	0.63	0.92	0.63
<b>Total .. ..</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Maps showing the overseas trade of Australia with various countries are shown on pages 534-5.

2. According to Major Groups of Countries.—The following table shows the trade of Australia with major groups of countries during the years 1960-61 and 1961-62.

The sterling group includes the United Kingdom, its colonies and dependencies, all other countries of the British Commonwealth (except Canada and the New Hebrides Condominium) and certain non-British countries of which the most important are Burma, Bahrain Islands, other Arabian States (excluding Saudi Arabia and Yemen), Iceland, and the Republic of South Africa.

The European Economic Community group consists of Belgium-Luxembourg, France, Federal Republic of Germany, Greece, Italy and the Netherlands.

The European Free Trade Association group in the following table consists of the following countries: Norway and Portugal and their dependencies, Austria, Denmark, Finland, Sweden and Switzerland.

**VALUE OF TRADE OF AUSTRALIA: MAJOR GROUPS OF COUNTRIES**  
(INCLUDING GOLD)  
(£A.'000 f.o.b.)

Major groups of countries						1960-61	1961-62
STERLING							
Imports—							
From—United Kingdom	..	..	..	..	..	340,531	265,917
Other countries	..	..	..	..	..	154,504	129,283
Total	..	..	..	..	..	495,035	395,200
Exports—							
To—United Kingdom	..	..	..	..	..	231,591	206,374
Other countries	..	..	..	..	..	188,599	204,108
Total	..	..	..	..	..	420,190	410,482
Excess of Exports (+) or Imports (-)						-74,845	+15,282
NON-STERLING—NORTH AMERICA							
Imports—							
From—United States of America(a)	..	..	..	..	..	217,046	174,090
Canada	..	..	..	..	..	45,664	34,158
Total	..	..	..	..	..	262,710	208,248
Exports—							
To—United States of America(a)	..	..	..	..	..	73,330	109,940
Canada	..	..	..	..	..	17,027	17,524
Total	..	..	..	..	..	90,357	127,464
Excess of Exports (+) or Imports (-)						-172,353	-80,784
OTHER NON-STERLING							
Imports—							
From—European Economic Community	..	..	..	..	..	128,614	98,288
European Free Trade Association(b)	..	..	..	..	..	49,501	46,252
Other countries	..	..	..	..	..	151,717	136,758
Total	..	..	..	..	..	329,832	281,298
Exports—							
To—European Economic Community	..	..	..	..	..	160,824	183,621
European Free Trade Association(b)	..	..	..	..	..	12,192	10,918
Other countries	..	..	..	..	..	285,280	344,799
Total	..	..	..	..	..	458,296	539,338
Excess of Exports (+) or Imports (-)						+128,464	+258,040
ALL GROUPS							
Total Imports	..	..	..	..	..	1,087,577	884,746
Total Exports	..	..	..	..	..	968,843	1,077,284
Excess of Exports (+) or Imports (-)						-118,734	+192,538

(a) Includes Alaska and Hawaiian Islands.

(b) Excludes United Kingdom.

### § 10. Trade with the United Kingdom

1. **Statistical Classes.**—The following table shows, according to statistical classes, the value of imports into Australia of United Kingdom origin and of exports from Australia to the United Kingdom during each of the years 1959-60 to 1961-62.

**VALUE OF TRADE OF AUSTRALIA WITH UNITED KINGDOM: CLASSES**  
(£A.'000 f.o.b.)

Class	Imports			Exports		
	1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
I. Foodstuffs of animal origin, etc.	1,700	1,989	1,932	70,086	48,304	50,413
II. Foodstuffs of vegetable origin; non-alcoholic beverages, etc.	700	1,226	1,164	57,844	62,504	68,100
III. Alcoholic liquors, etc.	3,300	3,334	4,017	811	764	850
IV. Tobacco, etc.	454	405	395	..	..	..
V. Live animals and birds	103	176	110	77	17	..
VI. Animal substances, etc.	925	1,258	755	78,697	58,302	55,628
VII. Vegetable substances, etc.	1,607	1,463	2,510	137	81	441
VIII. Apparel, textiles, etc.	37,652	39,483	28,043	399	187	247
IX. Oils, fats and waxes	2,034	2,187	2,388	1,077	1,504	1,610
X. Pigments, paints and varnishes	3,596	3,617	2,903	13	13	..
XI. Rocks, minerals, etc.	739	758	759	3,655	4,843	5,298
XII. Metals, metal manufactures and machinery	187,067	194,719	139,822	15,770	15,857	13,227
XIII. Rubber and leather, etc.	3,471	4,616	4,368	3,098	2,269	2,709
XIV. Wood and wicker, etc.	361	489	305	898	949	1,081
XV. Earthenware, etc.	8,365	9,397	7,708	21	11	..
XVI. Paper and stationery	20,087	20,574	17,832	312	305	410
XVII. Jewellery, etc.	3,109	3,321	3,135	195	450	..
XVIII. Optical, surgical and scientific instruments	5,748	5,741	5,731	553	820	782
XIX. Chemicals, medicinal products, essential oils, fertilizers	20,902	21,867	21,003	513	624	589
XX. Miscellaneous	(a)28,381	(a)23,910	(a)21,036	2,453	2,188	4,324
XXI. Gold and silver; bronze specie	1	1	1	10,712	31,598	665
<b>Total</b>	<b>330,302</b>	<b>340,531</b>	<b>265,917</b>	<b>247,321</b>	<b>231,591</b>	<b>206,374</b>

(a) Includes outside packages.

2. Imports of Principal Articles.—The following table shows the value of the principal articles imported into Australia from the United Kingdom during each of the years 1959-60 to 1961-62.

**VALUE OF IMPORTS OF PRINCIPAL ARTICLES OF UNITED KINGDOM ORIGIN: AUSTRALIA**  
(£A.'000 f.o.b.)

Article	1959-60	1960-61	1961-62	Article	1959-60	1960-61	1961-62
Aircraft and parts	3,261	2,807	3,199	Optical, surgical and scientific instruments	4,028	4,203	3,853
Arms and ammunition, military, naval and air force stores	4,615	3,702	3,621	Paper, printing	4,628	3,466	2,120
Aluminium—				Paper, wrapping	2,732	2,534	2,118
Plates, sheets, strips	1,681	1,490	559	Piece-goods—			
Leaf and foil	1,870	1,480	649	Cotton and linen	7,701	6,338	3,907
Apparel	4,290	4,933	2,684	Silk and rayon(a)	1,751	1,577	824
Books, magazines, etc.	7,426	8,234	8,250	All other piece-goods	5,035	5,450	3,845
Carpets	4,670	6,026	3,367	Plastics materials	5,796	3,556	3,210
Chemicals, medicinal products, essential oils and fertilizers	20,902	21,867	21,003	Rubber and rubber manufactures	2,690	3,542	3,417
Crockery	2,119	2,168	1,850	Sewing and other cottons, threads, etc.	2,237	2,939	1,968
Dyes	1,788	1,777	1,353	Stationery and paper manufactures	9,760	10,810	10,931
Electrical machinery and appliances	25,673	24,450	23,861	Tools of trade	2,292	2,481	1,869
Glass and glassware	3,887	4,255	2,952	Vehicles, parts and accessories	54,841	49,997	29,851
Iron and steel—				Vessels (ships) including parts	2,255	467	215
Plate and sheet	5,459	7,066	3,093	Whisky	3,103	3,086	3,761
Other	7,072	11,739	17,430	Yarns—			
Linoleums	2,418	2,320	2,274	Cotton	3,054	2,919	1,568
Machines and machinery (except dynamo electrical)—				Rayon	3,470	4,015	3,743
Agricultural	1,531	1,527	1,081	Other	595	828	651
Metal-working	7,683	7,793	4,586	All other articles(b)	47,816	53,531	36,109
Motive-power	25,507	22,001	16,696				
Other	34,666	43,157	33,449	<b>Total Imports</b>	<b>330,302</b>	<b>340,531</b>	<b>265,917</b>

(a) Includes tyre cord fabric.

(b) Includes outside packages.

3. Exports of Principal Articles of Australian Produce.—The following table shows the quantities and values of the principal articles of Australian produce exported to the United Kingdom during each of the years 1959–60 to 1961–62.

PRINCIPAL ARTICLES EXPORTED TO THE UNITED KINGDOM: AUSTRALIA  
(Australian Produce)

Article	Unit of quantity	Quantity.			Value (£A.'000 f.o.b.)		
		1959–60	1960–61	1961–62	1959–60	1960–61	1961–62
Butter .. .. .	ton	59,419	50,795	68,031	21,749	15,611	19,950
Cheese .. .. .	"	15,473	13,073	17,427	3,634	2,580	3,427
Eggs .. .. .	"	"	"	"	2,023	3,048	3,253
Fruit, dried .. ..	ton	26,731	28,964	34,542	4,601	4,685	5,251
" fresh .. .. .	'000 bus.	4,007	4,303	5,411	5,189	5,820	7,517
" preserved in airtight containers .. ..	ton	78,896	60,991	77,384	11,031	8,748	10,723
Gold .. .. .	'000 fine oz.	600	2,017	32	9,375	31,528	498
Grains and cereals—							
Barley .. .. .	ton	104,985	194,425	213,685	2,205	3,438	4,636
Flour (wheaten), plain white .. ..	ton(a)	46,255	56,135	66,560	1,235	1,459	1,943
Wheat .. .. .	ton	562,106	734,205	623,622	13,919	18,472	16,438
Other .. .. .	"	"	"	"	2,316	1,451	1,986
Hides and skins .. ..	"	"	"	"	2,550	2,349	2,009
Lead bullion .. ..	ton	49,265	53,741	37,861	5,260	5,330	3,527
" pig .. .. .	"	63,694	66,790	65,897	5,436	5,271	4,615
Leather .. .. .	"	"	"	"	3,061	2,240	2,643
Meats preserved by cold process—							
Beef and veal .. ..	ton	81,650	40,631	35,528	20,192	9,622	7,765
Lamb .. .. .	"	18,876	19,894	11,414	2,741	3,637	1,614
Mutton .. .. .	"	9,382	7,947	7,074	1,158	1,509	920
Rabbit and hare .. ..	"	"	"	"	2,492	2,339	1,985
Meats, tinned .. ..	ton	34,570	19,883	22,753	9,318	5,081	6,859
Milk and cream .. ..	'000 lb.	42,004	2,927	5,583	1,863	103	305
Silver bullion .. ..	'000 fine oz.	3,266	168	375	1,333	68	161
Sugar (cane) .. ..	ton	365,486	329,251	375,538	15,586	17,676	18,599
Tallow, inedible .. ..	"	8,118	2,289	19,409	482	132	597
Timber, undressed(b) .. ..	'000 super ft.	2,685	6,351	2,910	189	445	217
Wine, fermented .. ..	'000 gal.	1,313	1,362	1,161	796	736	823
Wool .. .. .	'000 lb.	291,602	237,851	223,577	75,947	55,559	53,291
Zinc bars, etc. .. ..	ton	8,947	3,243	15,574	977	339	1,424
All other articles .. ..	"	"	"	"	17,004	17,255	18,568
<b>Total Exports (Australian Produce) ..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>243,662</b>	<b>227,431</b>	<b>201,544</b>

(a) 2,000 lb.

(b) Excludes railway sleepers.

4. Imports from the United Kingdom and Competing Countries.—Since 1908, permanent resident Commissioners appointed by the British Board of Trade have been located in Australia for the purpose of advising manufacturers and merchants in the United Kingdom with regard to Australian trade affairs. From 8th August, 1907, the Commonwealth Customs Tariffs have provided preferential rates of customs duties on certain goods the produce or manufacture of the United Kingdom, with the object of assisting the British manufacturer to retain or improve his position in this market in relation to other countries. The main provisions in these Acts relating to preference are dealt with on previous pages in this chapter.

In an investigation into the relative position occupied by the United Kingdom in the import trade of Australia, the comparison must, of course, be restricted to those classes of goods which are produced or manufactured in the United Kingdom. Imports into Australia include many commodities, such as tea, rice, raw coffee, unmanufactured tobacco, petroleum products, copra, timber, etc., which the United Kingdom cannot supply. These items, in addition to others not available from that country, have therefore been omitted from the following table.

The imports into Australia have been classified under nine headings, and the trade of the United Kingdom therein is compared with that of France, the Federal Republic of Germany, Japan, and the United States of America. These countries have been selected as the principal competitors in normal times with the United Kingdom for the trade of Australia under the specified headings. Totals for each of the years 1959–60 to 1961–62 are shown in the following table.

**VALUE OF IMPORTS FROM THE UNITED KINGDOM AND ITS MAIN  
COMPETITORS: AUSTRALIA**  
(£A.'000 f.o.b.)

Nature of imports	Year	United Kingdom	France	Federal Republic of Germany	Japan	United States of America	All countries
Foodstuffs of animal origin	1959-60	1,700	2	288	1,709	628	9,947
	1960-61	1,989	10	285	2,320	1,514	13,338
	1961-62	1,932	11	315	2,504	1,037	11,484
Yarns and manufactured fibres, textiles and apparel	1959-60	37,652	2,382	4,577	23,230	6,206	111,073
	1960-61	39,483	2,992	4,836	25,933	12,205	132,477
	1961-62	28,043	2,192	2,927	24,322	9,417	104,204
Metals, metal manufactures and machinery	1959-60	187,067	6,976	29,831	5,480	78,140	354,935
	1960-61	194,719	8,830	38,164	21,983	113,282	435,751
	1961-62	139,822	4,071	29,631	7,599	84,612	315,338
Rubber and leather and manufactures thereof, and substitutes therefor	1959-60	3,471	323	196	113	5,300	25,462
	1960-61	4,616	493	518	255	6,895	25,539
	1961-62	4,368	394	378	502	4,520	19,447
Earthenware, cement, china, glass and stoneware	1959-60	8,365	558	795	2,166	1,270	16,656
	1960-61	9,397	690	1,034	2,861	2,432	20,798
	1961-62	7,708	684	1,078	2,372	1,596	17,957
Pulp, paper and board; paper manufactures and stationery	1959-60	20,087	261	1,090	696	4,859	54,991
	1960-61	20,574	309	1,838	1,560	10,323	70,176
	1961-62	17,832	333	1,123	1,506	10,039	57,853
Sporting material, toys, fancy goods, jewellery and time-pieces	1959-60	3,109	139	1,294	2,090	375	10,832
	1960-61	3,321	169	1,647	2,460	961	13,019
	1961-62	3,135	191	1,351	2,122	978	12,515
Optical, surgical and scientific instruments, etc.; photographic goods, n.e.i.	1959-60	5,748	117	2,953	1,594	3,533	15,533
	1960-61	5,741	104	3,067	1,729	5,011	17,499
	1961-62	5,731	139	2,415	1,749	4,885	16,860
Chemical, medicinal and pharmaceutical products, essential oils and fertilizers	1959-60	20,902	1,307	5,815	855	8,021	47,984
	1960-61	21,867	1,341	7,122	1,433	11,496	56,817
	1961-62	21,003	1,467	6,455	1,547	13,474	58,156
Total, competitive imports	1959-60	288,101	12,065	46,839	37,933	108,332	647,413
	1960-61	301,707	14,938	58,511	60,534	164,119	785,414
	1961-62	229,574	9,482	45,673	44,223	130,558	613,814
Total imports (less bullion and specie) (a)	1959-60	330,301	13,742	53,868	41,533	150,031	924,528
	1960-61	340,530	16,722	66,176	65,445	217,041	1,085,331
	1961-62	265,917	11,085	51,832	49,495	174,080	882,546

(a) Includes outside packages.

VALUE OF IMPORTS FROM THE UNITED KINGDOM AND ITS MAIN  
COMPETITORS: AUSTRALIA—*continued*.  
(£A.'000 f.o.b.)

Nature of imports	Year	United Kingdom	France	Federal Republic of Germany	Japan	United States of America	All countries
PERCENTAGE DISTRIBUTION							
Total, competitive imports	1959-60	44.5	1.9	7.2	5.9	16.7	100.0
	1960-61	38.4	1.9	7.4	7.7	20.9	100.0
	1961-62	37.4	1.5	7.4	7.2	21.3	100.0
Total imports (less bullion and specie) (a)	1959-60	35.7	1.5	5.8	4.5	16.2	100.0
	1960-61	31.3	1.5	6.1	6.0	20.0	100.0
	1961-62	30.1	1.3	5.9	5.6	19.7	100.0

(a) Includes outside packages.

The principal classes of competitive imports are metals, metal manufactures and machinery (value £315,338,000 in 1961-62) and manufactured fibres, textiles and apparel (value £104,204,000 in 1961-62). The value of goods included in these two groups represented 68.4 per cent. of the total value of competitive commodities during 1961-62.

### § 11. Trade with Eastern Countries

1. *Merchandise Trade According to Countries.*—The values of imports from, and exports to, eastern countries during the years 1959-60 to 1961-62 are shown in the following table.

VALUE OF MERCHANDISE TRADE OF AUSTRALIA WITH EASTERN COUNTRIES:  
COUNTRIES OF ORIGIN OR CONSIGNMENT  
(£A.'000 f.o.b.)

Country	Imports(a)			Exports		
	1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
<b>Commonwealth Countries—</b>						
Borneo (British) .. ..	15,830	12,329	12,883	1,350	1,359	713
Ceylon .. ..	11,238	10,166	9,821	7,711	7,180	8,947
Hong Kong .. ..	5,161	6,243	6,418	8,518	10,511	14,015
India .. ..	18,180	22,707	16,070	16,219	13,884	25,222
Malaya, Federation of ..	17,828	15,195	11,098	12,681	11,993	11,560
Pakistan .. ..	3,380	5,501	5,663	5,027	4,921	3,329
Singapore .. ..	1,560	1,856	2,489	10,948	12,185	15,987
<b>Foreign Countries—</b>						
Burma .. ..	9	17	11	1,888	1,701	2,782
Cambodia .. ..	2	4	4	400	93	108
China, Republic of—						
Formosa .. ..	108	224	388	1,353	2,008	1,976
Mainland .. ..	4,419	3,974	3,811	16,132	39,857	65,956
Indonesia .. ..	29,438	28,105	26,510	3,221	5,133	3,548
Japan .. ..	41,533	65,445	49,495	134,674	161,488	186,905
Korea, North .. ..	1	1	1	309	1,909	854
Korea, Republic of ..	1	75	115	3,992	1,721	1,684
Laos .. ..	1	..	..	4	46	28
Nepal .. ..	1	..	..	2	..	..
Philippines .. ..	269	406	510	4,918	3,696	4,669
<b>Portuguese Dependencies—</b>						
Macao .. ..	3	..	20	10	4	2
Timor .. ..	..	..	1	82	90	98
Other .. ..	..	..	13	185	158	74
Thailand .. ..	421	443	334	2,378	1,887	3,311
Viet-Nam, North .. ..	..	1	..	21	6	22
Viet-Nam, Republic of ..	..	16	7	260	216	522
<b>Total .. ..</b>	<b>149,383</b>	<b>172,711</b>	<b>145,662</b>	<b>232,283</b>	<b>282,048</b>	<b>352,312</b>

(a) Includes outside packages.

2. **Merchandise Trade—Principal Articles.**—The following table shows the value of merchandise trade between Australia and eastern countries for each of the years 1959–60 to 1961–62. The countries concerned in this trade are listed in the previous table.

**VALUE OF MERCHANDISE TRADE OF AUSTRALIA WITH EASTERN COUNTRIES:  
PRINCIPAL ITEMS**

(EXCLUDING GOLD)

(£A.'000 f.o.b.)

Item	Imports			Item	Exports		
	1959–60	1960–61	1961–62		1959–60	1960–61	1961–62
Apparel and attire ..	2,694	3,526	2,777	Animal (except marine) oils and fats ..	3,135	2,389	2,925
Bags and sacks ..	6,954	13,319	10,330	Army stores ..	568	599	1,267
Crude and crépe rubber and latex ..	12,890	9,227	6,223	Butter ..	1,824	2,570	1,782
Fibres, vegetable origin ..	2,259	2,886	1,597	Cheese ..	569	899	766
Hair and bristles ..	966	1,156	642	Fodders ..	881	1,231	1,380
Nuts, edible ..	1,175	1,145	1,026	Fruit, fresh or preserved ..	1,304	1,303	1,706
Outside packages ..	(a)	2,025	1,865	Grains and cereals—			
Petroleum oils—				Wheat ..	22,745	44,782	78,616
Kerosene ..	3,183	2,594	2,377	Flour (wheaten), plain white ..	10,454	13,137	11,312
Petroleum, crude ..	28,349	25,662	29,846	Other ..	2,415	8,787	7,906
Petroleum, spirit ..	7,327	5,222	3,665	Infants' and invalids' foods ..	2,192	2,478	2,638
Solar and residual ..	792	609	866	Leather ..	800	782	750
Piece-goods—				Machines and machinery ..	2,506	3,650	4,213
Cotton and linen ..	23,840	24,257	20,857	Meats, all kinds ..	3,806	4,431	4,017
Hessian and other jute ..	2,382	3,280	3,210	Metals and metal manufactures except zinc bars, etc.	16,331	19,758	31,141
Pulp, paper and board ..	511	1,130	994	Milk and cream ..	6,122	6,294	5,661
Tea ..	13,010	12,740	12,718	Petroleum oils ..	3,555	4,206	1,680
Timber ..	5,170	6,602	3,870	Sugar—from cane (raw) ..	3,401	5,472	4,076
Vegetable oils and fats, n.e.i.	1,181	993	878	Wool ..	118,041	120,385	137,139
All other articles ..	36,700	56,338	41,921	Zinc bars, blocks, etc. ..	2,194	3,092	3,428
				All other articles ..	29,440	35,803	49,909
<b>Total ..</b>	<b>149,383</b>	<b>172,711</b>	<b>145,662</b>	<b>Total ..</b>	<b>232,283</b>	<b>282,048</b>	<b>352,312</b>

(a) Not recorded separately; included in all other articles.

For commodities imported in 1961–62 from eastern countries, the principal countries of origin were:—Borneo (British)—petroleum, £11,053,000; timber, £1,581,000; Ceylon—tea, £8,798,000; India—bags and sacks, £5,459,000; cotton and linen piece-goods, £2,506,000; hessian, £3,063,000; and tea, £1,272,000; Malaya—crude rubber, £4,700,000; latex, £1,377,000; timber, £1,689,000; and tin, £1,520,000; Japan—metals and metal manufactures, £7,599,000; cotton and linen piece-goods, £15,898,000; other textiles, £5,644,000; earthenware, china, glass, etc., £2,372,000; optical, etc., instruments, £1,749,000; and tinned fish, £2,259,000; Indonesia—petroleum spirit, £2,177,000; kerosene, £1,337,000; crude petroleum, £18,793,000; residual solar and other mineral oils, £1,051,000; and tea, £2,365,000.

The principal countries of destination for commodities exported in 1961–62 were:—Ceylon—flour, £5,070,000; milk and cream, £1,657,000; Hong Kong—wool, £2,644,000; wheat, £2,123,000; metals and metal manufactures, £2,428,000; India—wheat, £14,934,000; metal and metal manufactures, £2,432,000; Malaya—flour, £2,611,000; metal and metal manufactures, £1,095,000; Singapore—flour, £1,606,000; meats, £1,261,000; petroleum oils, £1,195,000; Republic of China—Mainland—wheat, £48,765,000; other grains, £3,809,000; wool, £11,677,000; Indonesia—metals and metal manufactures, £1,220,000; Japan—wool, £114,583,000; metals and metal manufactures, £19,654,000; coal, £12,901,000; wheat, £11,087,000; copper ores and concentrates, £6,538,000; and other ores and concentrates, £4,764,000.



### § 12. Oversea Trade at Principal Ports

The following table shows the value of overseas imports and exports at the principal ports of Australia during the year 1961-62, and the totals for each State and Territory.

VALUE OF OVERSEA TRADE: PRINCIPAL PORTS, 1961-62  
(£A.'000 f.o.b.)

Port	Imports	Exports	Port	Imports	Exports
<b>NEW SOUTH WALES</b>			<b>SOUTH AUSTRALIA</b>		
Sydney, including Botany Bay .. ..	391,667	244,963	Port Adelaide, including Adelaide .. ..	48,325	71,469
Newcastle, including Port Stephens .. ..	11,179	48,730	Port Pirie .. ..	699	22,468
Port Kembla .. ..	10,064	27,962	Port Lincoln .. ..	686	8,690
Other .. ..	..	1,107	Wallaroo .. ..	498	9,955
<i>Total</i> .. ..	<i>412,910</i>	<i>322,762</i>	Other .. ..	1,485	9,406
<b>VICTORIA</b>			<i>Total</i> .. ..	<i>51,693</i>	<i>121,988</i>
Melbourne .. ..	282,979	232,271	<b>WESTERN AUSTRALIA</b>		
Geelong .. ..	21,430	47,429	Fremantle, including Perth and Kwinana .. ..	48,422	107,068
Portland .. ..	884	7,100	Geraldton .. ..	365	13,598
<i>Total</i> .. ..	<i>305,293</i>	<i>286,800</i>	Bunbury .. ..	862	6,094
<b>QUEENSLAND</b>			Albany .. ..	403	12,626
Brisbane .. ..	45,092	110,116	Other .. ..	37	4,695
Townsville .. ..	1,111	27,740	<i>Total</i> .. ..	<i>50,089</i>	<i>144,081</i>
Mackay .. ..	419	7,752	<b>TASMANIA</b>		
Cairns .. ..	1,558	5,655	Hobart .. ..	6,664	18,090
Bowen .. ..	31	1,708	Launceston .. ..	4,236	5,953
Rockhampton .. ..	154	4,806	Burnie .. ..	1,852	3,351
Gladstone .. ..	366	4,990	Devonport .. ..	872	1,204
Maryborough .. ..	85	2,801	<i>Total</i> .. ..	<i>13,624</i>	<i>28,598</i>
Other .. ..	45	6,875	<b>NORTHERN TERRITORY</b>		
<i>Total</i> .. ..	<i>48,861</i>	<i>172,443</i>	Darwin .. ..	2,084	612
			<b>AUSTRALIAN CAPITAL TERRITORY</b>		
			Canberra .. ..	192	..
			<i>Grand Total</i> .. ..	<i>884,746</i>	<i>1,077,284</i>

### § 13. Classified Summary of Australian Oversea Trade

1. Statistical Classes.—(i) *Imports and Exports*. The following table shows, according to statistical classes, the value of Australian imports and exports during each of the years 1959-60 to 1961-62.

VALUE OF OVERSEA TRADE OF AUSTRALIA: CLASSES  
(£A.'000 f.o.b.)

Class	Imports			Exports		
	1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
I. Foodstuffs of animal origin, etc.	9,947	13,338	11,484	143,553	117,745	142,488
II. Foodstuffs of vegetable origin; non-alcoholic beverages, etc.	27,478	30,280	27,903	164,566	219,840	267,001
III. Alcoholic liquors, etc.	3,743	3,878	4,528	2,176	2,247	2,369
IV. Tobacco, etc.	14,178	13,362	9,744	354	415	564
V. Live animals and birds	636	715	576	2,036	1,453	1,470
VI. Animal substances, etc.	5,281	6,725	4,349	419,177	362,963	405,886
VII. Vegetable substances, etc.	20,235	20,418	19,713	1,130	971	1,737
VIII. Apparel, textiles, etc.	111,073	132,477	104,204	3,080	3,650	3,763
IX. Oils, fats and waxes	106,757	111,638	109,913	24,542	26,707	29,552
X. Pigments, paints and varnishes	6,629	6,803	5,456	1,089	1,233	1,232
XI. Rocks, minerals, etc.	7,770	8,680	7,539	29,059	37,641	40,350
XII. Metals, metal manufactures and machinery	354,935	435,751	315,338	87,227	94,624	110,961
XIII. Rubber and leather, etc.	25,462	25,539	19,447	5,403	4,500	4,855
XIV. Wood and wicker, etc.	20,689	23,824	15,355	3,876	3,782	3,621
XV. Earthenware, etc.	16,656	20,798	17,957	878	1,268	984
XVI. Paper and stationery	54,991	70,176	57,853	3,205	3,938	3,869
XVII. Jewellery, etc.	10,832	13,019	12,515	1,512	2,143	2,839
XVIII. Optical, surgical and scientific instruments	15,533	17,499	16,860	2,356	3,159	3,031
XIX. Chemicals, medicinal products, essential oils, fertilizers	47,984	56,817	58,156	7,882	9,000	8,931
XX. Miscellaneous	(a)63,719	(a)73,594	(a)63,656	22,858	30,761	32,382
XXI. Gold and silver; bronze specie	2,563	2,246	2,200	11,723	40,803	9,399
<i>Total</i> .. ..	<i>927,091</i>	<i>1,087,577</i>	<i>884,746</i>	<i>937,682</i>	<i>968,843</i>	<i>1,077,284</i>

(a) Includes outside packages.

(ii) *Exports—Australian Produce and Re-exports*. In the following table, the exports from Australia of (a) Australian produce and (b) re-exports are shown according to statistical classes for each of the years 1959-60 to 1961-62.

**VALUE OF EXPORTS FROM AUSTRALIA: AUSTRALIAN PRODUCE AND  
RE-EXPORTS  
(£A.'000 f.o.b.)**

Class	Australian produce			Re-exports		
	1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
I. Foodstuffs of animal origin, etc.	143,483	117,707	142,322	70	38	166
II. Foodstuffs of vegetable origin; non-alcoholic beverages, etc.	164,002	219,401	266,494	564	439	507
III. Alcoholic liquors, etc.	2,168	2,234	2,350	8	13	19
IV. Tobacco, etc.	284	351	520	70	64	44
V. Live animals and birds	1,886	1,295	1,377	150	158	93
VI. Animal substances, etc.	419,100	362,819	405,750	77	144	136
VII. Vegetable substances, etc.	1,100	918	1,660	30	53	77
VIII. Apparel, textiles, etc.	2,759	3,158	3,239	321	492	524
IX. Oils, fats and waxes	22,718	24,807	28,712	1,824	1,900	840
X. Pigments, paints and varnishes	1,028	1,172	1,151	61	61	81
XI. Rocks, minerals, etc.	28,948	37,526	40,145	111	115	205
XII. Metals, metal manufactures and machinery	81,831	89,175	104,264	5,396	5,449	6,697
XIII. Rubber and leather, etc.	5,353	4,443	4,787	50	57	68
XIV. Wood and wicker, etc.	3,753	3,643	3,525	123	139	96
XV. Earthenware, etc.	833	1,222	917	45	46	67
XVI. Paper and stationery	2,979	3,671	3,619	226	267	250
XVII. Jewellery, etc.	1,290	1,842	2,482	222	301	357
XVIII. Optical, surgical and scientific instruments	1,895	2,438	2,424	461	721	607
XIX. Chemicals, medicinal products, essential oils, fertilizers	7,553	8,457	8,501	329	543	430
XX. Miscellaneous	15,009	15,529	17,099	7,849	15,232	15,283
XXI. Gold and silver; bronze specie	11,716	40,798	9,386	7	5	13
Total	919,688	942,606	1,050,724	17,994	26,237	26,560

2. Imports of Principal Articles.—The next table shows the quantity, where available, and the value of the principal articles imported into Australia during each of the years 1959-60 to 1961-62.

**IMPORTS OF PRINCIPAL ARTICLES: AUSTRALIA**

Article	Unit of quantity	Quantity			Value (£A.'000 f.o.b.)		
		1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
Aircraft and parts	..	..	..	..	20,733	13,806	12,174
Aluminium manufactures	cwt.	598,977	635,091	408,335	7,717	8,224	5,348
Leaf and foil	'000 lb.	7,520	8,021	5,960	2,176	2,415	1,730
Apparel—	..	..	..	..	..	..	..
Blouses, skirts, costumes, etc.	..	..	..	..	1,133	1,690	1,204
Gloves	doz. prs.	513,312	554,373	390,292	1,175	1,509	1,098
Headwear	..	..	..	..	850	1,278	1,237
Men's and boys' outer clothing	..	..	..	..	541	805	480
Socks and stockings	..	..	..	..	552	767	523
Trimnings and ornaments	..	..	..	..	4,718	6,300	1,337
Other apparel and attire	..	..	..	..	2,256	2,902	2,908
Arms, explosives, military stores, etc.	..	..	..	..	9,371	6,916	8,140
Bags and sacks	..	..	..	..	6,973	13,383	10,380
Carpets and carpeting	..	..	..	..	5,734	7,640	4,532
Chemicals, drugs, fertilizers	..	..	..	..	47,984	56,817	58,156
Cocoa and chocolate	'000 lb.	29,743	37,432	32,465	4,667	4,916	3,758
Cotton, raw	..	41,519	41,842	37,735	5,172	5,477	5,272
Crockery, etc.	..	..	..	..	3,604	4,007	3,295
Electrical machinery and appliances	..	..	..	..	44,611	47,534	47,862
Fibres (excl. Cotton, raw)	..	..	..	..	7,696	7,995	7,106
Fish—	..	..	..	..	..	..	..
Fresh or preserved by cold process	'000 lb.	35,480	34,594	32,290	3,335	3,424	3,561
Preserved in airtight containers	..	20,414	27,493	22,021	3,797	5,308	4,086
Glass and glassware	..	..	..	..	8,515	9,832	7,928
Iron and steel—	..	..	..	..	..	..	..
Pipes, tubes and fittings	cwt.	503,518	698,028	428,223	2,459	3,814	3,527
Plate and sheet	..	1,987,545	7,770,918	1,179,620	9,311	28,063	6,710
Other	..	..	..	..	12,210	26,558	10,166
Machines and machinery (except dynamo electrical)—	..	..	..	..	..	..	..
Agricultural	..	..	..	..	3,553	3,522	2,463
Metal-working	..	..	..	..	14,884	17,146	11,678
Mining and metallurgical	..	..	..	..	4,000	4,469	7,685
Motive power—	..	..	..	..	..	..	..
Diesel engines	..	..	..	..	3,452	3,323	3,011
Steam engines, turbines and parts	..	..	..	..	4,237	3,004	2,389
Tractors and parts	..	..	..	..	22,512	24,072	15,494
Other	..	..	..	..	17,440	17,156	16,684
Office and accounting	..	..	..	..	9,655	13,445	11,712
Textile working	..	..	..	..	5,269	6,873	7,015
Other	..	..	..	..	53,258	74,040	59,707

## IMPORTS OF PRINCIPAL ARTICLES: AUSTRALIA—continued

Article	Unit of quantity	Quantity			Value (£A.'000 f.o.b.)		
		1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
Motor vehicles, chassis, bodies and parts .. .. .	..	..	..	..	82,994	74,238	47,202
Musical instruments .. .. .	..	..	..	..	16,237	18,733	14,392
Oils—							
Linseed .. .. .	'000 gal.	1,425	789	1,903	778	433	1,108
Olive .. .. .	"	1,348	1,147	1,466	1,386	1,099	1,461
Petroleum and shale—							
Crude (a) .. .. .	mill. gal.	2,794	3,108	2,871	72,877	76,354	65,302
Kerosene .. .. .	'000 gal.	105,849	117,531	97,413	5,766	6,022	5,020
Lubricating (mineral) .. .. .	"	48,619	52,159	46,179	6,544	7,438	6,453
Petroleum and shale spirit .. .. .	"	205,692	222,215	182,389	12,075	11,848	9,941
Residual and solar .. .. .	"	23,807	22,703	67,828	1,096	979	2,757
Paper, printing .. .. .	..	..	..	..	19,339	23,666	16,818
wrapping .. .. .	'000 cwt.	417	606	592	4,683	6,213	5,937
Piece-goods—							
Canvas and duck .. .. .	'000 sq. yds.	8,404	6,795	(b)	1,015	902	(b)
Cotton and linen .. .. .	..	..	..	..	43,589	45,209	35,518
Silk and man-made fibre-yarn .. .. .	..	..	..	..	8,755	8,623	7,239
Woolen and containing wool .. .. .	..	..	..	..	1,725	2,133	1,455
All other piece-goods .. .. .	..	..	..	..	10,007	12,699	10,304
Plastics materials .. .. .	..	..	..	..	11,830	14,974	13,451
Rubber and rubber manufactures .. .. .	..	..	..	..	24,248	23,645	17,772
Stationery and paper manufactures .. .. .	..	..	..	..	14,670	17,515	19,382
Tea .. .. .	'000 lb.	62,515	61,701	63,866	13,372	12,824	12,914
Timber, undressed, including logs(c) .. .. .	'000 sup. ft.	376,612	397,293	264,171	17,077	19,348	12,238
Tobacco .. .. .	'000 lb.	37,597	36,322	24,510	13,007	12,059	8,483
Yarns—							
Cotton .. .. .	..	7,907	9,067	5,410	3,233	3,901	2,198
Man-made fibres .. .. .	"	18,092	21,352	13,817	7,535	9,553	7,290
Woolen .. .. .	"	375	841	982	739	640	600
Other .. .. .	"	1,724	2,356	2,036	436	604	327
All other articles .. .. .	..	..	..	..	176,888	237,495	208,828
Total Imports .. .. .	..	..	..	..	927,091	1,087,577	884,746

(a) Includes once-run distillate.  
undressed timber not measured in super. feet.

(b) Not recorded separately.

(c) Excludes dunnage and

3. Exports of Principal Articles of Australian Produce.—The following table shows the quantities and values of the principal articles of Australian produce exported during each of the years 1959-60 to 1961-62.

## EXPORTS OF PRINCIPAL ARTICLES OF AUSTRALIAN PRODUCE

Article	Unit of quantity	Quantity			Value (£A.'000. f.o.b.)		
		1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
Butter .. .. .	ton	76,969	61,137	78,005	28,646	19,651	23,537
Cheese .. .. .	"	18,927	18,037	22,378	4,990	4,608	5,203
Chemicals, drugs, fertilizers .. .. .	..	..	..	..	7,882	9,000	8,931
Coal .. .. .	ton	1,087,844	1,888,415	3,469,552	4,327	7,682	13,611
Copper .. .. .	..	21,203	35,909	31,075	6,131	10,003	8,254
Fruit—							
Dried .. .. .	..	52,952	60,320	67,394	9,066	9,097	10,357
Fresh, including frozen .. .. .	'000 bus.	6,876	7,454	9,515	9,294	10,369	13,363
Preserved in airtight containers .. .. .	ton	89,270	67,850	84,261	12,385	9,773	11,919
Gold .. .. .	..	..	..	..	10,211	39,959	8,977
Grains and cereals—							
Barley .. .. .	ton	558,319	756,704	701,681	11,541	14,329	14,954
Flour (wheaten), plain white .. .. .	ton(a)	536,022	658,029	579,274	15,143	18,979	17,397
Wheat .. .. .	ton	2,444,251	4,098,081	5,441,667	61,680	102,426	142,446
Other .. .. .	..	..	..	..	12,710	14,423	16,777
Hides and skins .. .. .	..	..	..	..	31,779	27,194	32,147
Iron and steel .. .. .	..	..	..	..	31,288	27,511	43,152
Lead, pig .. .. .	ton	121,420	128,106	195,430	10,878	10,541	14,253
Lead, bullion .. .. .	"	49,265	53,741	46,461	5,260	5,330	4,183
Machines and machinery (except dynamo electrical) .. .. .	..	..	..	..	10,557	12,968	13,140
Meats preserved by cold process—							
Beef and veal .. .. .	ton	188,293	134,014	201,173	55,464	40,110	58,843
Lamb .. .. .	"	26,460	28,778	16,696	4,390	5,793	2,624
Mutton .. .. .	"	32,037	37,087	48,711	4,719	7,437	8,156
Other .. .. .	..	..	..	..	7,914	9,074	6,760
Meats, tinned .. .. .	ton	48,073	30,357	33,394	13,341	9,374	10,519
Milk and cream .. .. .	'000 lb.	144,792	108,554	103,337	10,942	9,152	8,307
Ores and concentrates .. .. .	ton	763,763	1,051,181	1,114,875	22,368	27,943	24,665
Petroleum and shale oils .. .. .	'000 gal.	320,044	463,073	(b)	17,719	21,693	22,363
Sugar (cane) .. .. .	ton	708,084	796,531	843,539	26,671	35,074	33,895
Wool(c) .. .. .	'000 lb.	1,430,470	1,382,979	1,457,589	386,153	334,442	372,531
All other articles .. .. .	..	..	..	..	86,239	90,671	99,460
Total Exports (Australian Produce) .. .. .	..	..	..	..	919,688	942,606	1,050,724

(a) 2,000 lb.

(b) Not available.

(c) Quantity in terms of greasy wool.

A graph showing exports in principal commodity groups in each of the years 1952-53 to 1961-62 will be found on page 536.

4. **Imports of Merchandise and Bullion and Specie.**—The table hereunder shows the value of imports into Australia during each of the years 1957-58 to 1961-62, grouped under the headings—Merchandise, and Bullion and Specie. The imports of merchandise are shown under the sub-headings of "free" and "dutiable" goods.

**VALUE OF EXPORTS OF MERCHANDISE, AND BULLION AND SPECIE:**  
**AUSTRALIA**

(£A.'000 f.o.b.)

Year	Merchandise			Bullion and specie	Total imports
	Free goods	Dutiable goods	Total		
1957-58.. ..	426,206	363,055	789,261	2,679	791,940
1958-59.. ..	464,274	330,114	794,388	2,211	796,599
1959-60.. ..	509,824	414,704	924,528	2,563	927,091
1960-61.. ..	576,277	509,054	1,085,331	2,246	1,087,577
1961-62.. ..	496,798	385,748	882,546	2,200	884,746

5. **Exports of Merchandise and Bullion and Specie.**—The next table shows the value of exports from Australia during each of the years 1957-58 to 1961-62, grouped under the headings—Merchandise, and Bullion and Specie. The exports of Australian produce and re-exports are shown separately.

**VALUE OF EXPORTS OF MERCHANDISE, AND BULLION AND SPECIE:**  
**AUSTRALIA**

(£A.'000 f.o.b.)

Year	Merchandise			Bullion and specie			Total exports
	Australian produce	Re-exports	Total	Australian produce	Re-exports	Total	
1957-58 ..	795,527	14,776	810,303	7,626	17	7,643	817,946
1958-59 ..	790,165	16,540	806,705	4,744	14	4,758	811,463
1959-60 ..	907,971	17,988	925,959	11,716	7	11,723	937,682
1960-61 ..	901,809	26,232	928,041	40,797	5	40,802	968,843
1961-62 ..	1,041,339	26,546	1,067,885	9,385	14	9,399	1,077,284

6. **Imports and Net Customs Revenue.**—The ratio of net customs revenue collected, excluding net primage, to the total value of all merchandise imported in each of the years 1957-58 to 1961-62 was as follows:—1957-58, 8.8 per cent.; 1958-59, 8.8 per cent.; 1959-60, 8.9 per cent.; 1960-61, 9.2 per cent.; and 1961-62, 9.4 per cent. Primage duty was in force during these years, and if this is added to net customs revenue the percentages become:—1957-58, 9.1 per cent.; 1958-59, 9.0 per cent.; 1959-60, 9.1 per cent.; 1960-61, 9.4 per cent.; and 1961-62, 9.6 per cent. The ratios of net customs revenue, excluding primage, to the total value of dutiable goods only were:—1957-58, 19.1 per cent.; 1958-59, 21.0 per cent.; 1959-60, 19.9 per cent.; 1960-61, 19.5 per cent.; and 1961-62, 21.5 per cent. The calculations are based on Australian currency values and on the assumption that the value of clearances approximated to the value of imports during the same period. For particulars of customs revenue collections see Chapter XXI. Public Finance.

### § 14. Ships' and Aircraft Stores

The value of ships' and aircraft stores, which are excluded from the export figures, is shown in the following table for each of the years 1957-58 to 1961-62, with separate figures for oils.

#### VALUE OF STORES LOADED ON OVERSEA SHIPS AND AIRCRAFT: AUSTRALIA (£A. '000 f.o.b.)

Item	1957-58	1958-59	1959-60	1960-61	1961-62
Oils .. .. .	8,383	6,704	7,817	8,937	7,819
All stores (including oils) ..	12,798	10,876	12,413	14,205	13,324

In addition to oils, the principal items supplied to oversea ships and aircraft in 1961-62 were:—Meats, £1,549,720; fruit and vegetables, £459,189; eggs, £182,846; butter, £115,345; ale, porter, beer, etc., £402,590; sea food, £194,851; flour, £48,206; rice, £28,655; milk and cream, £45,072; tobacco and cigarettes, £253,538.

### § 15. Movement of Bullion and Specie

1. Imports and Exports.—The following table shows the values of gold and silver bullion and specie, and of bronze specie, imported into, and exported from, Australia during each of the years 1959-60 to 1961-62.

#### VALUE OF OVERSEA TRADE OF AUSTRALIA IN BULLION AND SPECIE (£A. f.o.b.)

Item	Imports			Exports		
	1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
Gold—Bullion ..	2,518,819	2,201,903	2,148,395	10,207,274	39,959,140	8,976,094
Specie ..	4,080	1,182	..	4,000	280	732
<i>Total</i> ..	<i>2,522,899</i>	<i>2,203,085</i>	<i>2,148,395</i>	<i>10,211,274</i>	<i>39,959,420</i>	<i>8,976,826</i>
Silver—Bullion ..	36,147	31,101	41,663	1,400,562	748,156	313,159
Specie ..	3,459	11,303	9,518	109,767	94,028	108,150
<i>Total</i> ..	<i>39,606</i>	<i>42,404</i>	<i>51,181</i>	<i>1,510,329</i>	<i>842,184</i>	<i>421,309</i>
Bronze—Specie ..	824	518	6	1,304	859	854
Total— Australian pro- duce ..	..	..	..	11,716,148	40,797,511	9,385,581
Re-exports ..	..	..	..	6,759	4,952	13,408
<i>Grand Total</i> ..	<i>2,563,329</i>	<i>2,246,007</i>	<i>2,199,582</i>	<i>11,722,907</i>	<i>40,802,463</i>	<i>9,398,989</i>

2. Imports and Exports by Country.—The next table shows the imports and exports of bullion and specie from and to various countries during the year 1961–62.

**VALUES OF AUSTRALIAN IMPORTS AND EXPORTS OF BULLION AND SPECIE: COUNTRIES OF ORIGIN OR CONSIGNMENT, 1961-62**  
(£A. f.o.b.)

Country	Imports			Exports		
	Bullion	Specie	Total	Bullion	Specie	Total
<b>Commonwealth Countries—</b>						
Australia (re-imported) ..	..	6,506	6,506	..	..	..
United Kingdom ..	640	166	806	659,412	5,617	665,029
<b>Australian Territories—</b>						
Nauru ..	..	..	..	..	2,575	2,575
New Guinea ..	600,272	..	600,272	..	69,774	69,774
Norfolk Is. ..	..	182	182	..	368	368
Papua ..	..	..	..	..	16,943	16,943
Canada ..	282	..	282	..	616	616
Hong Kong ..	..	..	..	6,267,295	..	6,267,295
Kenya ..	..	..	..	..	117	117
New Zealand ..	317,464	1,865	319,329	144,263	6,529	150,792
<b>Pacific Islands (British)—</b>						
Fiji ..	1,267,445	1	1,267,446	6,561	38	6,599
Gilbert and Ellice Is. ..	..	..	..	..	1,036	1,036
Solomon Is. ..	617	..	617	..	2,025	2,025
Singapore ..	..	..	..	..	151	151
<b>Total, Commonwealth Countries ..</b>	<b>2,186,720</b>	<b>8,720</b>	<b>2,195,440</b>	<b>7,077,531</b>	<b>105,789</b>	<b>7,183,320</b>
<b>Foreign Countries—</b>						
France ..	..	..	..	1,571,094	..	1,571,094
Germany, Federal Republic of ..	21	340	361	..	..	..
Netherlands ..	..	..	..	499,345	..	499,345
South Africa ..	..	..	..	..	737	737
Switzerland ..	..	464	464	..	..	..
United States of America ..	3,317	..	3,317	48,999	3,210	52,209
" For Orders " ..	..	..	..	92,284	..	92,284
<b>Total, Foreign Countries</b>	<b>3,338</b>	<b>804</b>	<b>4,142</b>	<b>2,211,722</b>	<b>3,947</b>	<b>2,215,669</b>
<b>Grand Total ..</b>	<b>2,190,058</b>	<b>9,524</b>	<b>2,199,582</b>	<b>9,289,253</b>	<b>109,736</b>	<b>9,398,989</b>

## § 16. Exports According to Industries

1. Classification.—The following table provides an analysis of the total recorded value of Australian exports for the years 1959–60 to 1961–62. This analysis is designed to show fluctuations in the value of exports of Australian produce dissected according to the main industry of their origin, although any such classification is necessarily arbitrary in some respects.

## VALUES OF EXPORTS OF AUSTRALIAN PRODUCE: INDUSTRIAL GROUPS

Industrial group	Value (£A.'000 f.o.b.)			Proportion of value of exports of Australian produce (excluding gold) (Per cent.)		
	1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
Agriculture, horticulture and viticulture—						
Unprocessed .. ..	94,220	139,227	184,576	10.4	15.4	17.8
Processed .. ..	70,918	81,258	83,579	7.8	9.0	8.0
Total .. ..	165,138	220,485	268,155	18.2	24.4	25.8
Pastoral—						
Unprocessed .. ..	442,966	384,686	439,971	48.7	42.6	42.2
Processed .. ..	75,180	57,170	65,520	8.3	6.4	6.3
Total .. ..	518,146	441,856	505,491	57.0	49.0	48.5
Dairy and farmyard—						
Unprocessed .. ..	1,513	2,083	2,605	0.2	0.2	0.2
Processed .. ..	47,454	38,055	41,688	5.2	4.2	4.0
Total .. ..	48,967	40,138	44,293	5.4	4.4	4.2
Mines and quarries (other than gold)—						
Unprocessed .. ..	26,940	34,327	36,882	2.9	3.8	3.6
Processed .. ..	29,638	35,546	39,460	3.3	3.9	3.8
Total (a) .. ..	56,578	69,873	76,342	6.2	7.7	7.4
Fisheries—						
Unprocessed .. ..	4,839	5,026	6,858	0.5	0.6	0.6
Processed .. ..	960	946	761	0.1	0.1	0.1
Total .. ..	5,799	5,972	7,619	0.6	0.7	0.7
Forestry—						
Unprocessed .. ..	619	586	607	0.1	0.1	0.1
Processed .. ..	3,340	3,925	3,296	0.3	0.4	0.3
Total .. ..	3,959	4,511	3,903	0.4	0.5	0.4
Total Primary Produce—						
Unprocessed .. ..	571,097	565,935	671,499	62.8	62.7	64.5
Processed .. ..	227,490	216,900	234,304	25.0	24.0	22.5
Total .. ..	798,587	782,835	905,803	87.8	86.7	87.0
Manufactures .. ..	83,352	88,237	102,052	9.2	9.8	9.8
Refined petroleum oils .. ..	15,914	19,811	21,537	1.7	2.2	2.0
Unclassified .. ..	11,623	11,764	12,356	1.3	1.3	1.2
Total Australian Produce (excluding Gold) .. ..	909,476	902,647	1,041,748	100.0	100.0	100.0
Re-exports (excluding Gold) .. ..	17,994	26,236	26,559	..	..	..
Gold exports (a) .. ..	10,212	39,960	8,977	..	..	..
Total Recorded Value of Exports .. ..	937,682	968,843	1,077,284	..	..	..

(a) The value of refined newly-won gold was £16,770,000 in 1959-60, £16,203,000 in 1960-61, and £16,205,000 in 1961-62.

2. **Relative Importance of Industrial Groups.**—In the year 1961–62, Australian produce (other than gold) exported amounted to approximately £1,042 million. Of this, £906 million or 87 per cent. was mainly produce of primary industries, comprising £671 million of unprocessed produce and £234 million of goods which had been processed in some degree before export. The values of the principal individual items of processed Australian primary produce exported were:—Raw sugar, £33,191,000; flour, etc., £19,616,000; canned fruit, £11,919,000; dried fruit, £10,357,000; wool (scoured, tops, etc.), £41,996,000; canned meats, £10,519,000; butter, £23,537,000; milk (condensed, dried, etc.), £8,307,000; pig lead, £14,253,000; lead bullion, £4,183,000; zinc bars, blocks, etc., £6,387,000; copper ingots, £4,156,000; and undressed timber, £2,930,000.

The value of manufactures exported as classified above was £102 million, or approximately 10 per cent. of Australian produce (other than gold) exported in 1961–62. The values of principal individual items here included were:—Manufactures of metal, £58,573,000; implements and machinery, £10,315,000; drugs and chemicals, £6,998,000; and paper and stationery, £3,619,000.

The items enumerated indicate the arbitrariness of the line necessarily drawn between primary produce and manufactures in any classification of this kind. The value of processed primary products exported includes some element of value added by the simpler processes of manufacture, while the value shown for manufactures exported necessarily includes the value of raw materials (primary produce) used in those manufactures.

Refined petroleum oils exported are shown separately, as they consist of imported crude oils refined in Australia and re-exported in the refined form. The values of principal individual items shown as “unclassified” in 1961–62 were:—individual consignments of less than £50 in value, £4,753,000; and military equipment and stores and supplies for Australian projects overseas, £2,487,000.

### Export Prices and Price Indexes

Information on this subject, formerly included in this chapter, may now be found in Chapter XII. Labour, Wages and Prices.

## § 17. External Trade of Australia and other Countries

1. **Essentials of Comparison.**—Direct comparison of the external trade of any two countries is possible only when the general conditions prevailing therein, and the system of record, are more or less identical. For example, in regard to the mere matter of record, it may be observed that in one country the value of imports may be the value at the port of shipment, while in another the cost of freight, insurance and charges may be added thereto. Again, the values of imports and exports in one may be declared by merchants, whereas in another they may be the official prices fixed from time to time by a commission constituted for the purpose. In later years, moreover, a very substantial difference in the value of imports would result from the different methods of converting the moneys of foreign countries, i.e. from the application of current rates of exchange or of the mint par. Lastly, the figures relating to the external trade of any country are also affected in varying degree by the extent to which they include transit or re-export trade. This class of trade represents a much greater proportion of the trade of Switzerland and Belgium-Luxembourg than that of other countries. France and the United Kingdom also re-export largely, whereas in Canada, Australia and New Zealand the same class of trade represents a comparatively small proportion of the total.

2. **“Special Trade” of Various Countries.**—In the following table, the figures, which are expressed in Australian currency, relate as nearly as possible to imports cleared for home consumption in the various countries specified and to exports of their domestic products. It is to be noted, however, that these figures do not invariably denote the same thing throughout, since, in the United Kingdom and other manufacturing countries, raw or partly manufactured materials are imported as for home consumption and, after undergoing some process of manufacture or further modification, are re-exported as domestic production. Nevertheless, a comparison of this character reveals approximately the extent of the external trade which otherwise would not be manifest. The countries listed below are not necessarily all the important trading countries of the world, but those important countries for which comparable statistics are available. Information for countries other than Australia has been extracted from publications of the United Nations.



**VALUES OF IMPORTS CLEARED FOR HOME CONSUMPTION, AND EXPORTS OF DOMESTIC PRODUCTS (MERCHANDISE ONLY (a)): VARIOUS COUNTRIES, 1961**

Country	Imports cleared c.i.f.	Exports f.o.b.	Total	Trade per Head of Population		
				Imports cleared	Exports	Total
	£A. m.	£A. m.	£A. m.	£A.	£A.	£A.
United States of America	(b)6,553.1	9,225.9	15,779.0	35.7	50.2	85.9
United Kingdom	(c)5,299.6	4,603.1	10,902.7	175.7	87.0	262.7
Germany, Federal Republic of	4,884.4	5,663.8	10,558.2	90.1	104.5	194.6
France	2,981.2	3,218.7	6,199.9	64.9	70.0	134.9
Japan	(d)2,593.7	1,891.1	4,484.8	27.6	20.1	47.7
Canada	(b)2,542.0	2,594.2	5,136.2	139.4	142.2	281.6
Italy	2,331.2	1,869.6	4,200.8	47.0	37.7	84.7
Netherlands	2,282.1	1,922.8	4,204.9	196.1	165.2	361.3
Belgium-Luxembourg	1,883.5	1,751.8	3,635.3	195.2	185.0	380.2
Sweden	(d)1,306.7	1,224.1	2,530.8	173.8	162.8	336.6
Switzerland	1,208.5	911.2	2,119.7	220.9	166.6	387.5
Australia (e)	(b) 858.2	1,041.8	1,900.0	80.9	98.2	179.1
Denmark	(d) 836.2	686.2	1,522.4	182.5	149.8	332.3
Norway	721.4	415.6	1,137.0	199.8	115.1	314.9
Austria	663.0	536.6	1,199.6	93.8	75.9	169.7
Spain	487.5	317.0	804.5	16.0	10.4	26.4
Indonesia	354.5	350.0	704.5	3.7	3.7	6.4
Greece	318.7	99.6	418.3	38.0	11.9	49.9
Egypt	302.7	216.5	519.2	11.7	8.3	20.0
Chile	261.2	226.9	488.1	33.5	29.1	62.6
Turkey	227.2	154.9	382.1	8.2	5.6	13.8

(a) Includes silver. (b) f.o.b. (c) Covers goods imported less goods re-exported. (d) Covers goods imported as distinct from goods cleared for home consumption. (e) Year ended June, 1961.

### § 18. Oversea Trade in Calendar Years

For the purpose of comparison with countries which record overseas trade in calendar years, the following table has been compiled to show Australian imports and exports for each of the calendar years 1958 to 1962.

**VALUE OF OVERSEA TRADE IN CALENDAR YEARS: AUSTRALIA**  
(£A.'000 f.o.b.)

Year	Merchandise		Bullion and specie		Total	
	Imports	Exports	Imports	Exports	Imports	Exports
1958	792,891	738,913	2,541	4,083	795,432	742,996
1959	826,131	892,571	2,075	3,338	828,206	895,909
1960	1,056,842	874,585	2,389	40,577	1,059,231	915,162
1961	934,333	1,036,950	2,331	17,753	936,664	1,054,703
1962 (p)	1,009,935	1,048,498	2,237	5,367	1,012,172	1,053,865

### § 19. Excise

Although excise goods have no immediate bearing on overseas trade, the rate of excise duty is in some cases related to the import duty on similar goods. Moreover, as the Excise Acts are administered by the Department of Customs and Excise, it is convenient to publish here the quantities of Australian produce on which excise duty has been paid. Particulars of Customs and Excise revenue are shown in Chapter XXI. Public Finance. The following table shows the quantities of spirits, beer, tobacco, etc., on which excise duty was paid in Australia during the years 1960-61 and 1961-62.

## QUANTITY OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY WAS PAID: AUSTRALIA

Article	1960-61	1961-62	Article	1960-61	1961-62
	gallons	gallons		lb.	lb.
Beer .. ..	227,760,154	231,322,533	Cigarettes— Machine-made ..	40,802,271	42,322,473
	proof gallons	proof gallons	Petrol—	gallons	gallons
Spirits—			Aviation petrol (by- law) .. ..	7,534,827	6,886,060
Brandy .. ..	810,215	790,956	Aviation petrol (non by-law) .. ..	6,638,725	282,099
Gin .. ..	351,478	347,588	Petrol, n.e.i. ..	1,055,561,277	1,162,890,019
Whisky .. ..	389,514	399,307	Total Petrol ..	1,069,734,829	1,170,058,178
Rum .. ..	564,850	515,161			
Liqueurs .. ..	60,890	61,871	Aviation turbine fuel ..	30,190,573	34,354,110
Other .. ..	39,208	44,117			
Total Spirits (Potable) ..	2,216,155	2,159,000	Diesel fuel .. ..	46,077,699	45,203,607
Spirits for—			Playing cards ..	doz. packs 99,062	doz. packs 105,344
Fortifying wine ..	2,151,225	2,147,153			
Industrial or scien- tific purposes ..	255,422	277,529		60 papers or tubes	60 papers or tubes
Manufacture of—			Cigarette papers and tubes .. ..	98,160,059	87,819,994
Essences .. ..	100,435	104,656			
Scents and toilet preparations ..	76,986	82,560	Matches .. ..	8,640 matches 3,403,569	8,640 matches 3,370,199
Vinegar .. ..	195,955	197,110			
	lb.	lb.			
Tobacco .. ..	14,609,832	12,980,668	Coal .. ..	ton 18,681,695	ton 17,254,871
Cigars—				No.	No.
Hand-made .. ..	8,288	854	Cathode ray tubes ..	326,883	342,759
Machine-made ..	113,694	156,017			
Total Cigars ..	121,982	156,871			

## § 20. The Australian Balance of Payments

1. **Introduction.**—Estimates of a country's balance of payments are prepared for the purpose of providing a systematic record in money terms of the economic transactions which take place over a period between that country and all other countries. Such records are essential to the examination of influences which external factors have on the domestic economy. The Australian economy is subject to fairly large fluctuations in export income, and it is also affected in important respects by variations in the level of foreign investment and the demand for imports. Consequently, these estimates have always assumed particular importance in this country.

Official estimates of Australia's balance of payments covering the period 1928-29 to 1930-31 were included in the Appendix to Official Year Book No. 24, 1931. Except for the war years (1939 to 1945) estimates have since been published annually. Detailed estimates are currently provided twice yearly in the form of a mimeographed publication *Balance of Payments*. This publication brings the estimates forward to the end of the most recent financial year or half-year and, together with a printed volume *The Australian Balance of Payments, 1928-29 to 1950-51*, provides also a description of the various items included and the sources from which the information is obtained. A summarized statement of the principal current account items and some identified capital movements is prepared and issued on a quarterly basis in the *Balance of Payments—Quarterly Summary*.

The form in which the Australian estimates are presented follows the pattern originally adopted by the International Monetary Fund. In this presentation, a basic distinction is drawn between "current account" transactions and "capital account" transactions. Current account transactions are defined as those which involve changes in the ownership of goods or the rendering of services between residents of Australia and the rest of the world. They include such important items as exports, imports, shipping freights, dividends, profits and interest, travel and Government expenditure. The current account also includes transfers in the form of personal gifts and Government gifts of technical

assistance, for which there is no consideration. Capital account transactions are defined as those which involve claims to money and titles to investments between residents of one country and those of another country. Details are shown according to whether the items with which transactions are concerned are classified as assets or liabilities. For practical purposes, items are also broadly divisible into investment items (including oversea investment in companies in Australia and government loans), certain financing transactions, and monetary movements (including transactions with the International Monetary Fund and changes in the level of international reserves).

By definition, the balance of payments on current account is always equivalent to the balance on capital account. The net monetary movement is used as a control figure to which the net sum of all other figures must reconcile. However, errors and omissions occur in the estimation of the amounts involved in various items included in both current and capital accounts, and in addition there are timing differences between the statistical recording of trade transactions and certain invisible items, and the relevant foreign exchange transactions. Therefore, in order to preserve the identity between the total shown in the current account and the total shown in the capital account, it is necessary to introduce a "balancing item". The "balancing item" is included in the capital account, but, as mentioned above, it may include discrepancies in the current account, and it does not, as is frequently supposed, include only errors and timing differences related to investment and financing transactions.

Recent changes in the estimates include an adjustment for the estimated excess of the value of imports, as recorded in oversea trade statistics, over the actual selling price to the importer (see Appendix IV. *The Australian Balance of Payments 1957-58 to 1961-62*). Significant amendments to figures previously published for transportation items and changes in concept and presentation were made in the *Balance of Payments 1960-61 to 1961-62 and First Half 1962-63*. Information on these changes is provided in "Notes to Tables" and Appendix II. of that publication.

Details of the estimates are assembled from a variety of sources of which the following are the more important:—(i) statistics of exports and imports obtained from Australian trade statistics; (ii) details of the import valuation adjustment obtained from a sample of the invoices submitted to the Department of Customs in respect of imports into Australia; (iii) information on particular invisible current account items and capital movements obtained by regular inquiry from private organizations and Government departments; (iv) details of receipts and payments of foreign exchange provided by the banking system; (v) information on dividends remitted, undistributed income and private investment in companies provided by statistics of oversea investment collected by this Bureau; (vi) information on freight on imports and other items concerned with oversea shipping obtained from a sample of the invoices submitted to the Department of Customs in respect of imports into Australia and a survey of shipping operations conducted by this Bureau; and (vii) information on international reserves supplied by the Reserve Bank.

**2. Current Account.**—The balance of payments on current account is arranged to show a series of credit items and a corresponding series of debit items. In general, entries on the credit side include all current transactions which result in receipts of foreign exchange (for goods and services, investment income or donations), and on the debit side the similar transactions which result in payments of foreign exchange. The principal exceptions to this rule are the amounts shown for undistributed income. In respect of these amounts no movement of foreign exchange takes place, the amounts concerned being treated as credits or debits in the relevant sections of the current account, and as corresponding outflows or inflows in the relevant sections of the capital account. Exceptions also occur where debts incurred for current account items, principally goods, are subsequently capitalized.

The largest items shown in the current account are exports and imports, and the difference between them represents the balance of visible trade. This is the most important and usually the most variable relationship in the balance of payments. A full evaluation of the overall position on current account, however, occurs only after the invisible items have been taken into account. The most important of these are the transportation items. Entries appear on both the debit and credit sides, the principal component on the debit side being freight payable overseas on imports into Australia. The principal component on the credit side is expenditure by oversea carriers, which represents mainly oversea ships' expenditure for stevedoring, port charges, etc., incurred in loading and discharging goods at Australian ports, and stores purchased in Australia. The items next in importance are those concerning income from property. Debit entries under this heading include dividends, profits, interest and royalties, payable overseas, while the credit entries include similar details of amounts receivable by Australian residents. These items include undistributed income for which, as mentioned above, no monetary payments occur. The remaining items are smaller than those mentioned above, and include travel, government transactions, donations (including foreign aid made available by the Australian government), and on the credit side the net value of Australian gold production.

## BALANCE OF PAYMENTS ON CURRENT ACCOUNT

(£ million)

Particulars.	1960-61	1961-62	First half 1962-63p
1. Exports f.o.b.(a) .. ..	925.5	1,066.7	503.5
2. Imports f.o.b.(a) .. ..	1,035.2	856.7	518.7
<i>Balance of Trade</i> .. ..	-109.7	210.0	-15.2
Invisible credits—			
3. Gold production .. ..	16.3	16.3	8.3
4. Transportation—			
Expenditure of oversea carriers	68.9	70.6	37.5
Australian carriers .. ..	12.6	11.2	6.2
	81.5	81.8	43.7
5. Travel .. ..	13.7	15.6	7.8
6. Property income—			
Undistributed income ..	3.1	4.3	2.0
Royalties and copyrights ..	0.8	0.9	0.6
Other .. ..	27.2	34.6	13.9
	31.1	39.8	16.5
7. Government—			
Australian government receipts	10.5	11.6	6.7
Foreign government expenditure	9.6	10.5	5.2
	20.1	22.1	11.9
8. Miscellaneous .. ..	12.6	14.1	8.5
9. Donations, etc.—			
Immigrants' funds .. ..	24.7	25.1	12.5
Other .. ..	9.5	10.7	5.4
	34.2	35.8	17.9
<i>Total Invisible Credits</i> .. ..	209.5	225.5	114.6
Invisible debits—			
10. Transportation(b)—			
Freight .. ..	128.0	101.0	59.0
Other .. ..	38.8	40.9	17.5
	166.8	141.9	76.5
11. Travel .. ..	41.7	40.8	17.9
12. Property income—			
Public authority interest ..	29.7	32.0	16.5
Direct investment .. ..	52.4	58.2	26.5
Undistributed income .. ..	60.1	33.6	27.0
Royalties and copyrights ..	13.0	15.2	7.3
Other .. ..	10.6	12.7	6.5
	165.8	151.7	83.8
13. Government—			
Defence .. ..	8.5	9.7	3.7
Other .. ..	17.2	17.5	9.0
	25.7	27.2	12.7
14. Miscellaneous .. ..	23.0	26.0	14.0
15. Donations, etc.—			
Government—			
Papua and New Guinea ..	18.5	22.0	10.5
Other foreign aid .. ..	4.5	4.2	2.1
Private .. ..	26.9	25.7	14.6
	49.9	51.9	27.2
<i>Total Invisible Debits</i> .. ..	472.9	439.5	232.1
<b>Balance on Current Account</b> .. ..	-373.1	-4.0	-132.7

(a) The amounts shown represent the recorded trade figures adjusted for balance of payments purposes. Adjustments affect both coverage and valuation. (b) Total freight and insurance on imports, whether payable overseas or in Australia, is estimated at £139 million in 1960-61, £112 million in 1961-62 and £65 million in the first half of 1962-63.

NOTE.—Minus sign (—) denotes deficit.

3. **Capital Account.**—The capital account shows net movements in assets and liabilities. On the assets side, the most important item is Australia's holdings of monetary gold and foreign exchange, usually referred to as international reserves. On the liabilities side, the most important items are government loans, I.M.F. transactions and private investment in Australian companies.

Transactions with international monetary and finance agencies appear on both sides of the capital account. On the assets side, items 2 and 3 show increases in subscriptions to these institutions, and on the liabilities side, items 10 and 11 show corresponding increases in liabilities or changes in liabilities previously incurred. Liabilities comprise, on the one hand, bank balances and special non-negotiable, non-interest bearing securities (payable in Australian currency but convertible by arrangement into foreign currency or gold) related to capital subscriptions to the various agencies and, on the other hand, drawings from the International Monetary Fund.

Changes in overseas investment in companies by Australian residents are shown on the assets side of the capital account (items 6 and 7), and changes in investment in Australian companies by overseas residents are shown on the liabilities side (items 13 (part) and 14). Figures shown for marketing authorities (item 5) represent changes in the estimated value of commodity stocks held overseas or in amounts owed by overseas debtors to the principal Australian marketing authorities.

The balancing item includes errors and omissions and timing differences, referred to on page 568.

#### BALANCE OF PAYMENTS ON CAPITAL ACCOUNT

(£ million)

Particulars	1960-61	1961-62	First half, 1962-63p
<b>CHANGES IN ASSETS</b>			
1. International reserves .. ..	38.8	10.4	24.9
2. I.M.F. .. ..	..	..	..
3. I.B.R.D., I.F.C., I.D.A. .. ..	2.1	1.7	1.7
4. Other government .. ..	16.1	-2.8	0.1
5. Marketing authorities .. ..	2.5	32.6	-23.6
6. Portfolio investment .. ..	-4.7	-2.3	-1.0
7. Direct investment—			
Branches—			
Unremitted profits .. ..	0.4	0.5	0.2
Other .. ..	2.9	3.9	*
Subsidiaries—			
Undistributed profits .. ..	2.7	3.8	1.8
Other .. ..	1.6	2.4	*
	7.6	10.6	(a) 2.0
8. Life assurance .. ..	0.2	-0.2	..
<b>Total</b> .. ..	<b>62.6</b>	<b>50.0</b>	<b>4.1</b>

For footnotes, see next page.

**BALANCE OF PAYMENTS ON CAPITAL ACCOUNT—continued**  
(£ million)

Particulars	1960-61	1961-62	First half, 1962-63p
<b>CHANGES IN LIABILITIES</b>			
9. Government loans—			
I.B.R.D. .. .. .	-7.5	-7.9	4.8
Other central government .. .. .	20.5	14.9	18.7
Local and semi-government .. .. .	-0.4	-0.2	-0.2
Discounts, etc. .. .. .	-1.1	-0.4	-0.8
	11.5	6.4	22.5
10. I.M.F. .. .. .	78.1	-78.8	..
11. I.B.R.D., I.F.C., I.D.A. .. .. .	-1.3	-1.3	1.6
12. Foreign banks .. .. .	0.5	0.5	0.2
13. Portfolio investment—			
Government securities .. .. .	-2.0	-1.5	*
Companies, etc. .. .. .	47.9	36.4	*
	45.9	34.9	*
14. Direct investment—			
Branches—			
Unremitted profits .. .. .	3.2	4.0	2.0
Other .. .. .	26.0	17.5	*
Subsidiaries—			
Undistributed profits .. .. .	56.9	29.6	25.0
Other .. .. .	98.3	44.2	*
	184.4	95.3	(a)27.0
15. Balancing item .. .. .	116.6	-3.0	(b)85.5
Total .. .. .	435.7	54.0	136.8
Balance on Capital Account .. .. .	373.1	4.0	132.7

(a) Excludes items marked (\*) for which information is not available and which are therefore included in the balancing item. (b) Includes items marked (\*).

4. Balance of Payments on Current Account, by Major Groups of Countries.—Estimates are also made of Australia's current account transactions with the following groups of countries (see p. 551 for countries included in the several groups).

**BALANCE OF PAYMENTS ON CURRENT ACCOUNT, BY MAJOR GROUPS  
OF COUNTRIES**  
(£ million)

Particulars	1960-61	1961-62	First half, 1962-63p
<b>EXPORTS f.o.b.(a)—</b>			
Sterling—			
United Kingdom .. .. .	210.2	216.1	103.7
Other .. .. .	175.4	191.6	102.3
Non-sterling—			
North America .. .. .	83.1	124.0	80.7
European Economic Community .. .. .	160.4	181.0	77.4
European Free Trade Association(b) .. .. .	11.8	10.9	3.3
Soviet Area .. .. .	66.5	93.9	22.9
Other .. .. .	218.1	249.2	113.2
Total .. .. .	925.5	1,066.7	503.5

For footnotes, see next page.

BALANCE OF PAYMENTS ON CURRENT ACCOUNT, BY MAJOR GROUPS OF COUNTRIES—*continued*

(£ million)

Particulars	1960-61	1961-62	First half, 1962-63p
<b>IMPORTS f.o.b.(a)—</b>			
Sterling—			
United Kingdom .. .. .	-322.1	-249.1	-161.8
Other .. .. .	-147.8	-122.7	-65.5
Non-sterling—			
North America .. .. .	-244.0	-210.9	-129.9
European Economic Community .. .. .	-123.3	-93.2	-54.4
European Free Trade Association(b) .. .. .	-48.3	-45.1	-24.8
Soviet Area .. .. .	-9.8	-8.7	-5.7
Other .. .. .	-139.9	-127.0	-76.6
Total .. .. .	-1,035.2	-856.7	-518.7
<b>INVISIBLES (NET)—</b>			
Sterling—			
United Kingdom .. .. .	-80.6	-65.5	-28.9
Other .. .. .	-46.9	-40.6	-23.2
Non-sterling—			
North America .. .. .	-99.1	-80.3	-50.0
European Economic Community .. .. .	-22.3	-17.6	-9.7
European Free Trade Association(b) .. .. .	-0.2	0.8	0.4
Soviet Area .. .. .	-1.0	-1.3	-0.7
Other .. .. .	-22.0	-17.3	-10.4
International agencies .. .. .	-7.6	-8.5	-3.3
Gold production .. .. .	16.3	16.3	8.3
Total .. .. .	-263.4	-214.0	-117.5
<b>BALANCE ON CURRENT ACCOUNT—</b>			
Sterling—			
United Kingdom .. .. .	-192.5	-98.5	-87.0
Other .. .. .	-19.3	28.3	13.6
Non-sterling—			
North America .. .. .	-260.0	-167.2	-99.2
European Economic Community .. .. .	14.8	70.2	13.3
European Free Trade Association(b) .. .. .	-36.7	-33.4	-21.1
Soviet Area .. .. .	55.7	83.9	16.5
Other .. .. .	56.2	104.9	26.2
International agencies .. .. .	-7.6	-8.5	-3.3
Gold production .. .. .	16.3	16.3	8.3
Total .. .. .	-373.1	-4.0	-132.7

(a) The amounts shown represent the recorded trade figures adjusted for balance of payments purposes. Adjustments affect both coverage and valuation. (b) Excludes United Kingdom.

NOTE.—Minus sign (—) denotes deficit.

5. **International Reserves.**—The following table shows the net gold and foreign exchange holdings of official and banking institutions for the years 1960-61 and 1961-62 and the first half of 1962-63.

## INTERNATIONAL RESERVES

(Source: Reserve Bank of Australia)

(£ million)

Particulars	1960-61	1961-62	First half, 1962-63
Gold .. .. .	69.2	79.2	84.9
Foreign exchange .. .. .	481.6	482.0	501.2
Total at end of period .. .. .	550.8	561.2	586.1
Change during period .. .. .	+58.8	+10.4	+24.9

## CHAPTER XIV

### TRANSPORT AND COMMUNICATION

NOTE.—The statistics in this chapter relate in the main to the year 1961–62, with comparisons restricted to a few recent years. More detailed figures and particulars for earlier years are included in the annual bulletins, *Transport and Communication and Finance, Part I.—Public and Private Finance*, published by this Bureau.

Current information on subjects dealt with in this chapter appears in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, the *Monthly Bulletin of Registrations of New Motor Vehicles* and two preliminary monthly statements on *Registrations of New Motor Vehicles*.

### SHIPPING

#### § 1. Control of Shipping

1. **Commonwealth Navigation and Shipping Legislation.**—By section 51 (i) of the Commonwealth Constitution, the Parliament of the Commonwealth is empowered to make laws in respect of "Trade and commerce with other countries, and among the States". By section 98, this power is further defined as extending to navigation and shipping. Section 51 (vii) empowers the Commonwealth Parliament to legislate in respect of "Lighthouses, lightships, beacons and buoys" and section 51 (ix) in respect of "Quarantine".

A review of the introduction and development of the *Navigation Act* 1912–1950 was given in Official Year Book No. 40, pages 110–2. Amendments to the principal Act were made by the *Navigation Acts* of 1952, 1953, 1956, 1958 and 1961.

Other shipping Acts under the powers of the Commonwealth are the *Sea-Carriage of Goods Act* 1924–1961, the *Seamen's Compensation Act* 1911–1960, the *Seamen's War Pensions and Allowances Act* 1940–1961, the *Australian Coastal Shipping Commission Act* 1956, the *Australian Coastal Shipping Agreement Act* 1956 and the *Stevedoring Industry Act* 1956–1962.

The control of shipping during, and immediately after, the 1939–45 War and the establishment of the Maritime Industry Commission (abolished in 1952), the Australian Stevedoring Industry Board (replaced in 1956 by the Australian Stevedoring Industry Authority), and the Australian Shipping Board (replaced in 1956 by the Australian Coastal Shipping Commission) are described in Official Year Books No. 36, pages 121–30 and No. 39, pages 147–8.

2. **Australian Coastal Shipping Commission.**—This Commission was established in 1956 for the purpose of maintaining and operating interstate, overseas and territorial shipping services, and replaced the Australian Shipping Board. It operates the Australian National Line, a Commonwealth-owned merchant shipping service which, at 30th June, 1961, comprised 44 vessels totalling 192,191 gross tons. These included 15 vessels with a gross tonnage of 500 to 3,000; 13 vessels with a gross tonnage of 3,000 to 5,000; 14 vessels with a gross tonnage of 5,000 to 8,000; and 2 vessels with a gross tonnage exceeding 10,000—the bulk ore carriers *Mount Keira* (10,229) and *Mount Kembla* (10,112). The Commission has currently on order a 7,500-ton deadweight bulk carrier and a passenger/vehicular vessel of approximately 9,850 gross tons for operation between Sydney and Tasmania. The latter vessel will augment the service already being provided between the mainland and Tasmania.



by the *Princess of Tasmania*, the vehicular-container ship *Bass Trader* and the container vessel *South Esk*. Negotiations have also been completed to purchase a 21,400-ton dead-weight bulk carrier now on the stocks. This vessel will be the largest unit of the fleet, and is expected to be in service in 1964.

In the year ended 30th June, 1962, the *Princess of Tasmania* carried 86,792 passengers, 19,172 accompanied vehicles, 6,802 commercial vehicles, 2,795 trade cars and 317 mail vans.

**3. Australian Shipbuilding Board.**—(i) *Constitution and Functions.* Originally established in 1941 under National Security Regulations, the Board has been reconstituted a number of times since its inception, and in 1948 was constituted on a permanent basis under the control of the Minister for Shipping and Transport. The membership of the Board consists of a Chairman, who is the General Manager, a Deputy Chairman, a Finance Member and two other members, one of whom represents the Naval Board. The staff of the Board are employed under the *Public Service Act* as officers of the Department of Shipping and Transport.

The existing functions of the Board, which have been summarized in earlier issues of the Official Year Book, are set out in detail in regulation 22 (4) of the Supply and Development Regulations.

(ii) *Construction Programme.* From its inception to 30th June, 1962, the Board had arranged for the construction of 72 vessels totalling 461,236 deadweight tons. During the war, the Board was also responsible for the construction of numerous small craft and a 1,000-ton floating dock.

At 30th June, 1962, current orders placed by the Board were for the construction of 11 vessels totalling 115,612 deadweight tons. The vessels consisted of one 32,250 dw.t. oil tanker (completed in October, 1962), two 21,400 dw.t. bulk carriers, one bulk ore carrier of 16,400 dw.t., one 2,500 dw.t. passenger-cargo vessel, one 7,500 dw.t. general purpose bulk vessel, one passenger/vehicular vessel of 2,100 dw.t., one "seatainer" vessel of 5,400 dw.t., two roll-on roll-off vehicular traffic vessels of 3,250 dw.t., and one small vessel of 162 dw.t.

In addition, orders have since been placed by the Board for three new motor ships, each of 1,800 tons, for the Commonwealth Lighthouse Service, a survey vessel and a 90-ft. general purpose vessel for the Department of the Navy, two 56-ft. diesel tugs for the Department of the Army, one 76-ft. air/sea rescue vessel for the Department of Civil Aviation, and one 70-ft. launch for the Department of Customs and Excise.

**4. Australian Stevedoring Industry Authority.**—In March, 1947, legislation established a permanent Stevedoring Industry Commission to continue in peace-time the functions performed during the war by the Commission established under National Security legislation. In June, 1949, legislation was enacted to abolish the Stevedoring Industry Commission, on which employers and employees were represented, and established in its place a Stevedoring Industry Board of three members, which attended to administrative matters formerly under the control of the Commission, such as the operation of labour bureaux at ports, payment of attendance money and provision of amenities. The industrial functions which previously came within the province of the Commission were assigned to a single Judge of the Commonwealth Court of Conciliation and Arbitration. In August, 1956, following a Committee of Inquiry into the stevedoring industry, the Stevedoring Industry Board was replaced by the Australian Stevedoring Industry Authority of three members, including a representative of the management side of industry and a representative of the trade union movement. At the same time, the judicial and non-judicial functions formerly exercised by the Commonwealth Court of Conciliation and Arbitration were divided between the Commonwealth Industrial Court and the Commonwealth Conciliation and Arbitration Commission respectively. Awards of the Conciliation and Arbitration Commission subsequently placed payment of sick pay, public holiday pay and annual leave under the administration of the Authority. Under amending legislation which operated from 6th June, 1961, the Authority became responsible for payment of long service leave to registered waterside workers, and its disciplinary powers were strengthened to reduce the time lost through unauthorized stoppages. The statutory provisions regulating the industry are now contained in the *Stevedoring Industry Act 1956–1962* and in Division 4 of Part III of the *Conciliation and Arbitration Act 1904–1961*.

## § 2. System of Record

In the system of recording statistics of oversea shipping, Australia is considered as a unit, and therefore only one entry and one clearance are counted for each voyage, without regard to the number of States visited (*see also* § 4, p. 577).

On arrival at, or departure from, a port in Australia, whether from or for an oversea country or from or for another port in Australia, the master or agent must "enter" the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers and cargo. At the end of each month, the information so obtained is forwarded to the Bureau of Census and Statistics. This information relates, in the main, only to vessels engaged in the carriage of passengers and/or cargo between Australian States or between Australia and oversea countries.

The size of a vessel may be expressed in a number of ways. A vessel's gross tonnage, expressed in tons of 100 cubic feet, represents the total volume of the enclosed space, i.e. a ship of 25,000 tons has a total enclosed capacity of 2,500,000 cubic feet. Its net tonnage, expressed in tons of 100 cubic feet, represents the volume of enclosed space that can be used for cargo or passengers. Its displacement is its total weight and is expressed in tons of 2,240 lb. Its deadweight tonnage is the difference between the displacement of the vessel loaded to its summer deadline and the displacement light, i.e. it is the weight the vessel can carry, including the weight of bunkers and stores. Net tonnage is the concept generally used in the tables in this chapter, but since it can give a misleading impression of the size of ships which have a function other than carrying passengers and cargo (e.g. a tug has no net tonnage), some figures are given for deadweight tons and tons gross also.

Most of the cargo is recorded in terms of the ton weight of 2,240 lb. However, some additional cargo, mainly bulky commodities, is shipped and recorded on the basis of 40 cubic feet of space used representing one ton measurement.

Except in § 5. Shipping at Principal Ports (p. 580), intra-State (coastal) movements of vessels, including those of vessels engaged solely in trade within State limits, are excluded from the statistics in the following pages.

## § 3. Oversea Shipping

1. **Total Movement.**—The following table shows the number of entrances and clearances combined of oversea vessels at Australian ports, and the aggregate net tonnage, during each of the years 1957–58 to 1961–62.

**OVERSEA SHIPPING: ENTRANCES AND CLEARANCES (COMBINED) OF VESSELS DIRECT, AUSTRALIA**

Particulars	1957–58	1958–59	1959–60	1960–61	1961–62
Number of vessels .. .. .	5,254	5,463	5,945	6,778	7,210
Net tonnage .. .. . '000 tons	24,515	26,019	28,874	34,317	37,662

Particulars of the total oversea movement of shipping for each year from 1822 to 1920–21 were published in Official Year Book No. 15, page 507, and those for each year from 1921–22 to 1950–51 in Official Year Book No. 40, page 97.

2. **Total Oversea Shipping, States.**—The following table shows, for each State and the Northern Territory, the number of entrances and clearances of vessels direct from and to overseas countries, and the aggregate net tonnage, during the year 1961–62.

**OVERSEA SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS DIRECT, 1961–62**

Particulars		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	No.	1,257	567	472	244	943	72	44	3,599
	'000 net tons	6,471	3,851	1,746	1,039	5,399	268	84	18,858
Clearances	No.	1,067	504	698	294	979	28	41	3,611
	'000 net tons	5,881	3,446	2,672	1,217	5,362	135	91	18,804

3. **Shipping Communication with Various Countries.**—A vessel arriving in Australia from overseas is recorded as coming from the country where the voyage commenced, irrespective of the number of intermediate ports of call. Similarly, a vessel leaving Australia is recorded as going to the country where the voyage is scheduled to terminate.

The following table shows statistics of the net tonnage entered and cleared, with cargo and in ballast, according to the principal countries where vessels commenced or terminated their voyages to or from Australia.

**OVERSEA SHIPPING: COUNTRIES FROM WHICH ENTERED OR FOR WHICH CLEARED, AUSTRALIA**

('000 net tons)

Country from which entered or for which cleared		With cargo or in ballast	Entered			Cleared		
			1959–60	1960–61	1961–62	1959–60	1960–61	1961–62
United Kingdom	..	Cargo	1,570	1,714	1,607	1,939	2,137	2,197
		Ballast	33	54	60	44	64	10
New Zealand	..	Cargo	750	760	752	1,162	1,261	1,240
		Ballast	530	615	891	73	82	119
Other Commonwealth countries		Cargo	2,646	2,862	3,177	2,202	2,236	2,578
		Ballast	265	423	470	959	627	854
Arabian states	..	Cargo	2,189	2,180	2,012	195	140	118
		Ballast	17	6	3	2,453	2,723	2,838
Indonesia	..	Cargo	1,291	1,391	1,733	104	175	122
		Ballast	114	186	354	775	858	1,010
Iran	..	Cargo	798	1,111	1,006	86	99	64
		Ballast	20	21	..	245	521	498
Japan	..	Cargo	739	1,065	811	1,288	2,013	2,661
		Ballast	893	1,405	2,522	27	26	13
United States of America	..	Cargo	723	982	812	623	720	795
		Ballast	6	8	11	21	45	24
Other foreign countries	..	Cargo	1,741	2,224	2,161	2,064	3,123	3,424
		Ballast	153	262	476	136	198	239
Total	..	Cargo	12,447	14,289	14,071	9,663	11,904	13,199
		Ballast	2,031	2,980	4,787	4,733	5,144	5,605
Total, with Cargo and in Ballast		..	14,478	17,269	18,858	14,396	17,048	18,804

4. **Country of Registration of Oversea Shipping.**—Particulars of overseas shipping which entered Australian ports during each of the years 1959–60 to 1961–62 are given in the following table according to country of registration of vessels.

OVERSEA SHIPPING: COUNTRY OF REGISTRATION OF VESSELS  
ENTERED, AUSTRALIA

('000 net tons)

Vessels registered at ports in—	1959- 60	1960- 61	1961- 62	Vessels registered at ports in—	1959- 60	1960- 61	1961- 62
Commonwealth countries—				Foreign countries— <i>con- tinued</i> —			
Australia .. ..	391	269	347	Norway .. ..	1,776	2,045	2,158
New Zealand .. ..	451	343	343	Panama .. ..	595	462	439
United Kingdom ..	6,305	7,390	7,496	Sweden .. ..	421	624	839
Other .. ..	472	633	859	U.S.A. .. ..	320	307	278
				Other .. ..	860	1,698	2,342
In cargo .. ..	6,574	7,375	7,132	In cargo .. ..	5,873	6,914	6,938
In ballast .. ..	1,045	1,260	1,913	In ballast .. ..	986	1,720	2,874
<i>Total, Commonwealth Countries</i> .. ..	7,619	8,635	9,045	<i>Total, Foreign Countries</i>	6,859	8,634	9,812
Proportion of total %	52.6	50.0	47.9	Proportion of total %	47.4	50.0	52.1
Foreign countries—				All countries—			
Denmark .. ..	331	493	561	In cargo .. ..	12,447	14,289	14,071
France(a) .. ..	342	324	436	Proportion of total %	86.0	82.7	74.6
Germany, Federal Re- public of .. ..	155	245	307	In ballast .. ..	2,031	2,980	4,787
Italy .. ..	532	532	656	Proportion of total %	14.0	17.3	25.4
Japan .. ..	779	907	859				
Netherlands .. ..	748	997	917	Grand Total .. ..	14,478	17,269	18,858

(a) Includes New Caledonia (47 during 1961-62).

The Australian tonnage which entered Australian ports from overseas during the year 1961-62 represented 1.8 per cent. of the total tonnage entered and was confined mainly to the New Zealand and Pacific Islands trade.

## § 4. Interstate Shipping

1. *System of Record.*—*Interstate Shipping* comprises two elements: (a) vessels engaged solely in interstate trade; and (b) vessels trading between Australia and overseas countries and in the course of their voyages proceeding from one State to another. (However, these vessels, except under special circumstances, do not engage in interstate carrying. Numerous overseas vessels obtain single voyage permits or exemptions under the *Navigation Act*. Such vessels include overseas tankers carrying petroleum products interstate, and, since the withdrawal of interstate passenger liners, other overseas vessels, under permit, carrying passengers and frozen cargo on the interstate run.) No complexity enters into the record of those in category (a), but with regard to the method of recording the movements of the overseas vessels (b), some explanation is necessary. Each State desires that its shipping statistics should show in full its shipping communication with overseas countries, but at the same time it is necessary to avoid any duplication in the statistics for Australia as a whole. In order to meet these dual requirements, a vessel arriving in any State from an overseas country—say the United Kingdom—via another State, is recorded in the second State as from the United Kingdom "Oversea via States", thus distinguishing the movement from a direct overseas entry. Continuing the voyage, the vessel is again recorded for the statistics of the third State as from the United Kingdom "Oversea via States". On an inward voyage, the *clearance* from the first State to the second State is a *clearance* interstate, and is included with interstate tonnage in conformity with the prefederation practice of the States, and to preserve the continuity of State statistics. Thus, movements of ships which are, from the standpoint of Australia as a whole, purely coastal movements, must for the individual States be recorded as "Oversea via States" or "Interstate" according to the direction of the movement. The significance of the record of these movements will be seen more clearly

from the following tabular presentation of the inward and outward voyages to and from Australia of an overseas vessel which, it is presumed, reaches Fremantle (Western Australia) and then proceeds to the terminal port of the voyage—Sydney (New South Wales)—via South Australia and Victoria. From the terminal port, the vessel will commence the outward voyage and retrace its inward track.

#### ITINERARY OF AN OVERSEA VESSEL ON THE AUSTRALIAN COAST

Particulars	Recorded as—		
	For the State and for Australia	For the States	
	1.	2.	3.
<b>Inward Voyage—</b>	<b>Overseas direct</b>	<b>Interstate direct</b>	
Enters Fremantle from United Kingdom			
Clears Fremantle for Adelaide .. ..			
Enters Adelaide from United Kingdom			
via Fremantle .. ..			Overseas via States
Clears Adelaide for Melbourne .. ..		Interstate direct	
Enters Melbourne from United Kingdom			
via Adelaide .. ..		Interstate direct	Overseas via States
Clears Melbourne for Sydney .. ..			
Enters Sydney from United Kingdom via			Overseas via States
Melbourne .. ..			
<b>Outward Voyage—</b>			
Clears Sydney for United Kingdom via			
Melbourne .. ..			Overseas via States
Enters Melbourne from Sydney .. ..		Interstate direct	
Clears Melbourne for United Kingdom			
via Adelaide .. ..		Interstate direct	Overseas via States
Enters Adelaide from Melbourne .. ..			
Clears Adelaide for United Kingdom via			Overseas via States
Fremantle .. ..			
Enters Fremantle from Adelaide .. ..		Interstate direct	
Clears Fremantle for United Kingdom ..	Overseas direct		

From the method outlined above, the requirements for Australia and for the individual States are ascertained as follows. (a) The aggregate of all ships recorded for each State as "Overseas direct" gives the overseas shipping for Australia as a whole; (b) the aggregate for all ships recorded in any State as "Overseas direct" plus those recorded as "Overseas via States" gives the total *overseas shipping* for that State; and (c) the aggregate for all ships recorded as "Overseas via States" may also be used, together with those recorded as "Interstate direct (including those engaged solely in interstate movement) to furnish figures showing the total *interstate movement* of shipping.

2. *Interstate Movement.*—(i) *Interstate Direct.* The following table shows the number of entrances and the net tonnage of vessels recorded into each State and the Northern Territory from any other State (including overseas vessels on interstate direct voyages as in column 2 above) during each of the years 1959–60 to 1961–62.

#### INTERSTATE MOVEMENT OF SHIPPING: ENTRANCES OF VESSELS INTERSTATE DIRECT

State or Territory	Number			Net tons ('000)		
	1959–60	1960–61	1961–62	1959–60	1960–61	1961–62
New South Wales .. ..	1,903	1,883	1,933	5,493	5,780	6,149
Victoria .. ..	1,720	1,637	1,749	4,640	4,809	5,147
Queensland .. ..	747	799	748	1,947	2,030	1,930
South Australia .. ..	1,060	1,103	1,147	3,518	3,726	3,969
Western Australia .. ..	596	671	685	2,759	3,303	3,206
Tasmania .. ..	1,073	1,100	1,223	1,257	1,472	1,675
Northern Territory .. ..	70	66	69	128	107	139
<b>Australia .. ..</b>	<b>7,169</b>	<b>7,259</b>	<b>7,554</b>	<b>19,742</b>	<b>21,227</b>	<b>22,215</b>

(ii) *Oversea via States.* The figures in the following table show the number of entrances and clearances of vessels to and from overseas countries via other Australian States as in column 3 in the table in para. 1 above, and their aggregate net tonnage.

**INTERSTATE MOVEMENT OF SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS OVERSEAS VIA OTHER AUSTRALIAN STATES, 1961-62**

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances .. No.	779	894	472	567	46	238	1	2,997
'000 net tons	4,011	4,527	2,159	2,637	325	1,099	1	14,759
Clearances .. No.	869	870	284	499	29	247	..	2,798
'000 net tons	4,053	4,466	1,236	2,328	138	1,101	..	13,322

(iii) *Total Interstate Movement.* In order to ascertain the aggregate movement of interstate shipping, including the total interstate movement of overseas vessels, the figures in the two preceding tables must be combined. The following table shows, for each State and the Northern Territory, the number of entrances and clearances of vessels from and for other States (including the interstate movement of overseas vessels) during the year 1961-62, together with the aggregate net tonnage.

**INTERSTATE MOVEMENT OF SHIPPING: TOTAL, 1961-62**

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances .. No.	2,712	2,643	1,220	1,714	731	1,461	70	10,551
'000 net tons	10,160	9,674	4,089	6,606	3,531	2,774	140	36,974
Clearances .. No.	2,838	2,694	1,006	1,770	708	1,525	67	10,608
'000 net tons	10,467	9,963	3,166	6,721	3,600	2,882	124	36,923

The following table shows the total interstate movement of shipping, including overseas vessels travelling overseas via States and interstate direct, for Australia for each of the years 1957-58 to 1961-62.

**INTERSTATE MOVEMENT OF SHIPPING: TOTAL, AUSTRALIA**

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Entrances .. No.	9,093	9,446	9,866	10,225	10,551
'000 net tons	29,464	30,932	32,857	35,791	36,974
Clearances .. No.	9,093	9,425	9,819	10,276	10,608
'000 net tons	29,553	30,842	32,622	36,006	36,923

3. *Shipping Engaged Solely in Interstate Trade.*—The following table shows, for each State and the Northern Territory, the number of entrances direct from other States of vessels engaged solely in interstate trade (i.e., excluding overseas vessels in continuation of their overseas voyages) during the year 1961-62, together with the net tonnage.

**SHIPPING ENGAGED SOLELY IN INTERSTATE TRADE(a): ENTRANCES, 1961-62**

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Ships entered ..	1,265	1,105	415	811	258	1,122	56	5,032
Net tons .. '000	3,138	1,759	575	2,220	869	1,183	84	9,828

(a) Excludes vessels travelling interstate via ports in the same State.

4. **Australian Trading Vessels.**—The following table shows particulars of all Australian trading vessels of 200 gross tons or more engaged in the regular overseas, interstate or coastal (intrastate) services at 30th June, 1962.

**AUSTRALIAN TRADING VESSELS(a) OF 200 GROSS TONS OR MORE,  
30th JUNE, 1962**

Vessels	No.	Dead weight tons	Gross tons
<b>Interstate vessels—</b>			
Australian-owned, Australian-registered vessels ..	102	573,080	420,598
New Zealand-owned, Australian-registered engaged in Australian coastal trade .. ..	9	24,835	21,047
Total Interstate Vessels .. ..	111	597,915	441,645
<b>Intrastate vessels .. ..</b>	21	28,912	24,493
<b>Total Coastal Trading Vessels .. ..</b>	132	626,827	466,138
<b>Overseas trading vessels—</b>			
Australian-owned, Australian-registered operated mainly on overseas services .. ..	6	21,702	21,095
Australian-owned, overseas-registered operated wholly on overseas services .. ..	10	111,286	80,656
Total Overseas Trading Vessels .. ..	16	132,988	101,751
<b>Total Australian Trading Vessels .. ..</b>	148	759,815	567,889

(a) Includes 10 vessels of 80,656 gross tons not registered in Australia.

### § 5. Shipping at Principal Ports

NOTE.—For details of Harbour Boards and Trusts in each State see Chapter XIX.

1. **Total Shipping, Australia.**—The following table shows the total volume of shipping—overseas, interstate and coastal—which entered the principal ports of Australia during the years 1960–61 and 1961–62. The movements of warships and of other non-commercial vessels are excluded from the table.

**TOTAL SHIPPING: ENTRANCES AT PRINCIPAL PORTS, AUSTRALIA**

Port of entry	1960–61		1961–62		Port of entry	1960–61		1961–62	
	Number	Net tons	Number	Net tons		Number	Net tons	Number	Net tons
		'000		'000			'000		'000
<b>New South Wales—</b>					<b>South Australia—</b>				
Sydney(a) ..	4,689	14,627	4,395	14,715	Adelaide ..	2,727	5,882	2,496	5,871
Newcastle ..	2,232	4,980	2,119	5,417	Port Lincoln ..	310	389	312	477
Port Kembla ..	1,002	3,346	1,113	3,781	Port Pirie ..	434	950	423	1,071
					Rapid Bay ..	68	157	96	237
					Wallerawang ..	133	261	83	265
					Whyalla ..	455	1,586	497	1,721
<b>Victoria—</b>					<b>Western Australia—</b>				
Melbourne ..	3,016	11,855	2,852	11,094	Fremantle (b) ..	1,476	8,047	1,491	8,017
Geelong ..	575	3,132	600	3,330	Albany ..	131	602	144	672
					Bunbury ..	127	485	126	499
					Carnarvon ..	73	113	71	110
					Geraldton ..	122	410	146	493
					Yampi ..	147	594	142	631
<b>Queensland—</b>					<b>Tasmania—</b>				
Brisbane ..	1,453	4,998	1,406	4,870	Hobart ..	481	1,303	577	1,520
Bowen ..	37	93	31	70	Burnie ..	330	641	365	686
Cairns ..	303	631	327	626	Devonport ..	352	556	428	668
Gladstone ..	64	228	96	450	Launceston ..	490	528	604	796
Mackay ..	92	252	107	294					
Rockhampton ..	80	208	104	279	<b>Northern Territory—</b>				
Townsville ..	370	1,118	377	1,034	Darwin ..	112	186	114	224

(a) Includes Botany Bay.

(b) Includes Kwinana.

2. Total Shipping—Australia, New Zealand and the United Kingdom.—The following table shows the total shipping tonnage which entered the principal ports of Australia during 1961–62 and of New Zealand and the United Kingdom during 1962.

**TOTAL SHIPPING: ENTRANCES AT PORTS, AUSTRALIA, NEW ZEALAND AND THE UNITED KINGDOM**

('000 net tons)

Port	Net tonnage entered	Port	Net tonnage entered	Port	Net tonnage entered
<b>AUSTRALIA—</b>		<b>NEW ZEALAND—</b>		<b>ENGLAND AND WALES—</b>	
Sydney (N.S.W.)(a)	14,715	Wellington ..	4,858	<i>continued</i>	
Melbourne (Vic.) ..	11,094	Auckland ..	4,486	Manchester (including Runcorn) ..	6,804
Fremantle (W.A.)(b)	8,017	Lyttleton ..	3,429	Hull ..	6,126
Adelaide (S.A.) ..	5,871	Otago ..	1,596	Bristol ..	6,124
Newcastle (N.S.W.) ..	5,417	Napier ..	1,324	Swansea ..	4,364
Brisbane (Qld.) ..	4,870	Bluff ..	1,021	Middlesbrough ..	4,305
Port Kembla (N.S.W.) ..	3,781	Taranaki ..	1,007	Cardiff ..	3,573
Geelong (Vic.) ..	3,330	<b>ENGLAND AND WALES—</b>			
Whyalla (S.A.) ..	1,721	London ..	46,430		
Hobart (Tas.) ..	1,520	Southampton ..	26,152	<b>SCOTLAND—</b>	
Port Pirie (S.A.) ..	1,071	Liverpool (including Birkenhead) ..	22,387	Glasgow ..	8,007
Townsville (Qld.) ..	1,034	Tyne Ports ..	7,740	<b>NORTHERN IRELAND—</b>	
Launceston (Tas.) ..	796	Dover ..	6,931	Belfast ..	8,221
Burnie (Tas.) ..	686				

(a) Includes Botany Bay.

(b) Includes Kwinana.

## § 6. Shipping Cargo

1. Oversea and Interstate Cargo.—(i) *Australia*. The table hereunder shows the aggregate tonnage of overseas and interstate cargo discharged and shipped at Australian ports for the years 1957–58 to 1961–62. Most of the cargo is recorded in terms of the ton weight of 2,240 lb., the remainder, mainly bulky commodities, being shipped and recorded on the basis of 40 cubic feet of space occupied representing one ton measurement.

### SHIPPING CARGO MOVEMENT: AUSTRALIA

('000 tons)

Year	Oversea cargo				Interstate cargo			
	Discharged		Shipped		Discharged		Shipped	
	Weight	Meas.	Weight	Meas.	Weight	Meas.	Weight	Meas.
1957–58 ..	13,719	2,914	7,366	1,489	12,621	1,335	12,614	1,157
1958–59 ..	14,232	2,666	8,646	1,469	12,236	1,288	12,345	1,047
1959–60 ..	15,458	3,263	10,108	1,479	12,535	1,562	12,923	1,360
1960–61 ..	17,265	3,801	13,748	1,551	13,130	1,622	13,713	1,473
1961–62 ..	17,508	2,763	17,178	1,547	13,318	1,427	13,658	1,186



(ii) *Principal Ports.* The following table shows the tonnage of overseas and interstate cargo discharged and shipped at the principal ports of Australia during 1961-62.

**CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1961-62**  
(<sup>'000 tons</sup>)

Port	Discharged				Shipped			
	Overseas		Interstate		Overseas		Interstate	
	Wt	Meas.	Wt	Meas.	Wt	Meas.	Wt	Meas.
Sydney .. .. .	1,933	1,163	544	175	2,443	403	344	111
Botany Bay .. .. .	3,560	..	39	..	62	..	854	..
Newcastle .. .. .	372	1	2,068	..	2,259	..	1,843	1
Port Kembla .. .. .	440	..	3,794	2	1,233	..	666	..
Other .. .. .	10	..	3	..	28	4	1	..
<i>Total, New South Wales</i> ..	<i>6,315</i>	<i>1,164</i>	<i>6,448</i>	<i>177</i>	<i>6,025</i>	<i>407</i>	<i>3,708</i>	<i>112</i>
Melbourne .. .. .	2,820	1,003	1,600	476	716	512	512	497
Geelong .. .. .	3,012	6	519	5	2,011	..	948	2
Portland .. .. .	47	..	64	3	77	17	8	..
<i>Total, Victoria</i> .. ..	<i>5,879</i>	<i>1,009</i>	<i>2,183</i>	<i>484</i>	<i>2,804</i>	<i>529</i>	<i>1,468</i>	<i>499</i>
Brisbane .. .. .	289	182	873	94	513	61	36	44
Cairns .. .. .	48	8	104	11	135	1	18	4
Gladstone .. .. .	19	..	64	..	333	..	13	..
Mackay .. .. .	16	..	53	..	167	..	56	..
Townsville .. .. .	49	..	167	11	385	..	37	4
Other .. .. .	4	..	60	3	339	2	346	..
<i>Total, Queensland</i> ..	<i>425</i>	<i>190</i>	<i>1,321</i>	<i>119</i>	<i>1,872</i>	<i>64</i>	<i>506</i>	<i>52</i>
Port Adelaide .. .. .	377	248	1,494	71	608	178	175	28
Adrossan .. .. .	..	..	..	..	143	..	178	..
Port Lincoln .. .. .	52	1	51	..	355	..	57	..
Port Pirie .. .. .	16	..	172	..	503	..	225	..
Rapid Bay .. .. .	..	..	..	..	..	..	452	..
Whyalla .. .. .	4	..	283	..	102	..	3,586	..
Other .. .. .	52	2	2	1	578	18	224	..
<i>Total, South Australia</i> ..	<i>501</i>	<i>251</i>	<i>2,002</i>	<i>72</i>	<i>2,289</i>	<i>196</i>	<i>4,897</i>	<i>28</i>
Fremantle(a) .. .. .	3,739	117	515	62	2,725	79	1,234	20
Bunbury .. .. .	123	..	3	..	334	66	15	3
Geraldton .. .. .	65	..	..	..	512	4	19	..
Yampi .. .. .	..	..	5	..	..	..	1,378	..
Other .. .. .	111	3	40	2	443	22	27	6
<i>Total, Western Australia</i> ..	<i>4,038</i>	<i>120</i>	<i>563</i>	<i>64</i>	<i>4,014</i>	<i>171</i>	<i>2,673</i>	<i>29</i>
Hobart .. .. .	100	15	419	131	103	153	195	91
Burnie .. .. .	24	1	88	44	35	4	52	94
Launceston .. .. .	126	13	132	71	25	22	53	53
Other .. .. .	2	..	82	265	..	1	102	228
<i>Total, Tasmania</i> .. ..	<i>252</i>	<i>29</i>	<i>721</i>	<i>511</i>	<i>163</i>	<i>180</i>	<i>402</i>	<i>466</i>
Darwin, Northern Territory ..	98	..	80	..	11	..	4	..
<i>Australia</i> .. .. .	<i>17,508</i>	<i>2,763</i>	<i>13,318</i>	<i>1,427</i>	<i>17,178</i>	<i>1,547</i>	<i>13,658</i>	<i>1,186</i>

(a) Includes Kwinana.

2. Oversea Cargo according to Country of Registration of Vessels.—The following table shows the total overseas cargo, discharged and shipped combined, according to the country in which the vessels were registered, during each of the years 1959–60 to 1961–62.

**OVERSEA CARGO DISCHARGED AND SHIPPED: COUNTRY OF REGISTRATION OF VESSELS, AUSTRALIA**

('000 tons)

Vessels registered at ports in—	1959–60		1960–61		1961–62	
	Weight	Meas.	Weight	Meas.	Weight	Meas.
<b>Commonwealth countries—</b>						
Australia .. ..	484	113	273	106	297	116
Hong Kong .. ..	218	68	606	68	1,092	27
New Zealand .. ..	617	380	507	404	487	358
United Kingdom .. ..	10,606	2,527	12,457	2,703	12,735	2,204
Other .. ..	568	164	612	167	457	173
<b>Total, Commonwealth countries .. ..</b>	<b>12,493</b>	<b>3,252</b>	<b>14,455</b>	<b>3,448</b>	<b>15,068</b>	<b>2,878</b>
Proportion of Total %	48.9	68.6	46.6	64.4	43.4	66.8
<b>Foreign Countries—</b>						
Denmark .. ..	841	46	1,042	33	1,283	36
France and New Caledonia .. ..	527	81	465	82	730	83
Germany, Federal Republic of .. ..	423	141	476	240	546	215
Italy .. ..	428	58	384	84	864	52
Japan .. ..	1,539	154	1,879	210	1,697	216
Netherlands .. ..	916	322	1,322	314	1,206	218
Norway .. ..	4,117	260	4,628	354	5,205	165
Panama .. ..	1,259	10	856	56	876	10
Sweden .. ..	953	202	1,108	152	1,884	257
United States of America .. ..	305	181	299	138	316	103
Other .. ..	1,765	35	4,099	241	5,011	77
<b>Total Foreign Countries .. ..</b>	<b>13,073</b>	<b>1,490</b>	<b>16,558</b>	<b>1,904</b>	<b>19,618</b>	<b>1,432</b>
Proportion of Total %	51.1	31.4	53.4	35.6	56.6	33.2
<b>Grand Total .. ..</b>	<b>25,566</b>	<b>4,742</b>	<b>31,013</b>	<b>5,352</b>	<b>34,686</b>	<b>4,310</b>

**§ 7. Vessels Registered in Australia**

1. Australian-registered Trading Vessels.—The following table shows the number and gross tonnage of trading vessels of 200 tons and over registered in Australia at 30th June, 1962, classified according to—(i) year of construction, 1958 to 1962, and 1957 and earlier years, (ii) type of trade in which the vessels were engaged, and (iii) vessels built in Australian or in overseas shipyards. The statistics in this table have been compiled by the Commonwealth Department of Shipping and Transport. The *Merchant Shipping Act*, under which vessels are registered in Australia, does not make it compulsory to register vessels under 15 tons burden if engaged in river or coastal trade. Larger vessels are also exempt from registration if not engaged in trade. Yachts and small trading vessels may be, and frequently are, registered at the request of the owners.

## AUSTRALIAN-REGISTERED TRADING VESSELS, 30TH JUNE, 1962 (a)

Year of construction	Oversea and interstate vessels		Intrastate vessels		Built in Australian yards		Built overseas		Total	
	No.	Gross tons	No.	Gross tons	No.	Gross tons	No.	Gross tons	No.	Gross tons
1957 and earlier .. ..	96	333,364	20	22,497	57	220,508	59	135,353	116	355,861
1958 .. .. .	8	39,046	..	..	3	21,949	5	17,097	8	39,046
1959 .. .. .	6	33,146	..	..	4	26,936	2	6,210	6	33,146
1960 .. .. .	3	24,457	..	..	3	24,457	..	..	3	24,457
1961 .. .. .	3	20,141	1	1,996	4	22,137	..	..	4	22,137
1962 .. .. .	1	12,586	..	..	1	12,586	..	..	1	12,586
<b>Total Registered in Australia ..</b>	<b>117</b>	<b>462,740</b>	<b>21</b>	<b>24,493</b>	<b>72</b>	<b>328,573</b>	<b>66</b>	<b>158,660</b>	<b>138</b>	<b>487,233</b>

(a) 200 gross tons and over.

Figures in this table relate to gross tons, and are therefore not comparable with those in the table following, which relate to net tons and to *all* registered vessels irrespective of tonnage and type.

2. **Vessels Registered.**—The following table shows the number and net tonnage of steam, sailing and other vessels on the register of each State and the Northern Territory at 31st December, 1962.

## VESSELS REGISTERED, 31st DECEMBER, 1962

State or Territory	Steam and motor		Sailing				Barges, hulks, dredges, etc., not self-propelled		Total	
			Propelled by sail only		Fitted with auxiliary power					
	No.	Net tons	No.	Net tons	No.	Net tons	No.	Net tons	No.	Net tons
New South Wales ..	304	43,709	28	2,047	130	1,618	11	1,439	473	48,813
Victoria ..	128	155,228	31	706	64	1,235	16	6,211	239	163,380
Queensland ..	82	34,965	33	594	50	579	4	830	169	36,968
South Australia ..	43	26,129	2	9	50	2,207	5	1,433	100	29,778
Western Australia ..	106	14,743	209	3,032	77	1,741	5	498	397	20,014
Tasmania ..	50	13,566	42	693	111	2,593	3	690	206	17,542
Northern Territory ..	..	..	16	154	11	227	..	..	27	381
Australia ..	713	288,340	361	7,235	493	10,200	44	11,101	1,611	316,876

3. **World Shipping Tonnage.**—At 1st July, 1962, the total steamships, motorships and auxiliaries of 100 gross tons and upwards throughout the world amounted to 38,661, with a gross tonnage of 139,979,813. Of these totals, steamships numbered 12,715 for 73,633,812 gross tons, motorships 25,124 for 66,195,558 gross tons, and auxiliaries 822 for 150,443 gross tons. Included therein were 4,922 oil tankers of 100 gross tons and upwards, with a gross tonnage of 45,303,702. Australian steamships, motorships and auxiliaries, 299 for 574,491 gross tons, constituted 0.77 per cent. and 0.41 per cent. respectively of the total number and tonnage. This information has been derived from *Lloyd's Register of Shipping*.

## § 8. Miscellaneous

1. **Lighthouses.**—A list of the principal lighthouses on the coast of Australia, giving details of the location, number, colour, character, period, candle-power and visibility of each light so far as particulars are available, will be found in *Transport and Communication*, Bulletin No. 46.

2. **Distances by Sea.**—The distances by sea between principal ports of Australia and some important ports in other countries which trade with Australia were published in Official Year Book No. 48, page 525.

3. **Shipping Freight Rates.**—The *Quarterly Summary of Australian Statistics* shows a list of the current freight rates for general merchandise in respect of both oversea and interstate shipments.

The following table shows the freight rates from Australia to various countries for certain important commodities at 31st December, 1962.

**OVERSEA SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31st DECEMBER, 1962**

(1 Ton measurement = 40 cubic feet)

Article and country	Unit for which freight rate is quoted	Freight rate
<b>UNITED KINGDOM AND CONTINENTAL EUROPE—</b>		<i>Rates—Sterling</i>
Butter .. .. .	Box 56 lb.	s. d. 11 6
Cheese .. .. .	lb.	0 2 17/32
Eggs, in shell .. .. .	Ton measurement	342 3
<b>Meats, preserved by cold process—</b>		
Beef, refrigerator, excluding carton .. .. .	lb.	0 3.51
Lamb, refrigerator, excluding carton .. .. .	lb.	0 4.33
Mutton, refrigerator, excluding carton .. .. .	lb.	0 3.51
Beef, refrigerator, carton .. .. .	lb.	0 2.53
Lamb, refrigerator, carton .. .. .	lb.	0 2.53
Mutton, refrigerator, carton .. .. .	lb.	0 2.53
Rabbits .. .. .	Ton measurement	267 9
Preserved in tins .. .. .	Ton measurement	224 6
Sausage casings, dried, in casks or cases .. .. .	Ton measurement	253 3
		224 6 Frozen
		224 6 Dry
<b>Meats, not frozen—preserved in tins</b> .. .. .	<b>Ton measurement</b>	<b>224 6</b>
<b>Milk and cream, condensed</b> .. .. .	<b>Ton measurement</b>	<b>224 6</b>
<b>Fruit—</b>		
Canned .. .. .	Ton measurement	178 0
Dried .. .. .	Ton measurement	178 0
<b>Fresh—</b>		
Apples .. .. .	Standard bushel case	12 2
Citrus .. .. .	Standard bushel case	13 11
Pears .. .. .	Standard bushel case	12 2
Pears .. .. .	½ bushel case	11 1
	Standard bushel case	13 11
	½ bushel case	12 7
	¼ bushel case	9 0
	½ bushel carton	8 5
<b>Grapes, grapefruit, oranges, lemons and plums</b> .. .. .		
<b>Grain and pulse, unprepared—</b>		
Barley, in bags .. .. .	Ton weight	107 6
Wheat, parcels—		
Bagged .. .. .	Ton weight	87 6
Bulk .. .. .	Ton weight	87 6
Maize .. .. .	Ton weight	107 6
Oats, in bags .. .. .	Ton weight	117 6
Rice, paddy, unhusked .. .. .	Ton weight	132 6
<b>Grain and pulse, prepared—</b>		
Bran .. .. .	Ton weight	122 6
Pollard .. .. .	Ton weight	115 0
Flour, wheaten .. .. .	Ton weight	102 6
Rice, clean, husked .. .. .	Ton weight	107 6
Jams .. .. .	Ton measurement	178 0
Fruit jellies .. .. .	Ton measurement	214 0
Wine .. .. .	Ton measurement	213 6
<b>Hides and skins—</b>		
Calf .. .. .	lb.	0 1 13/16
Cattle .. .. .	lb.	
Fox .. .. .	lb.	
Kangaroo .. .. .	lb.	0 5 15/32
Opossum .. .. .	lb.	
Rabbit and hare .. .. .	lb.	
Wallaby .. .. .	lb.	
Sheep—dumped .. .. .	lb.	0 2 11/16
Other .. .. .	lb.	0 5 15/32

**OVERSEA SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31st DECEMBER, 1962—continued**

Article and country	Unit for which freight rate is quoted	Freight rate
		<i>Rates—Sterling</i>
Pearlshell .. .. .	Ton measurement	s. d. 224 6
Trochus and green snail shell, bags or cases .. .. .	Ton weight	337 6
Wool—		
Greasy, dumped .. .. .	lb.	0 3.74
Scoured and washed, dumped .. .. .	lb.	0 4.69
Tops .. .. .	lb.	0 4.77 net
Bark, tanning .. .. .	Ton weight	224 6
Sandalwood, in bags .. .. .	Ton measurement	224 6
Apparel and attire, effects .. .. .	Ton weight or measurement	352 0
Oils—		
Eucalyptus .. .. .	Ton measurement	254 0
Coconut .. .. .	Ton weight	254 0
Whale .. .. .	Ton weight	254 0
Other .. .. .	Ton weight	254 0
Stearine .. .. .	Ton weight	254 0
Tallow, unrefined, in drums .. .. .	Ton weight	254 0
Ore in casks, bags or drums .. .. .	Ton weight	139 0
Zinc—		
Ex Risdon .. .. .	Ton weight	81 6
Other than above .. .. .	Ton weight	99 0
Dust in tins, sealed cases or new lined drums .. .. .	Ton weight	319 0
Copper .. .. .	Ton weight	122 6
Lead .. .. .	Ton weight	106 6
Steel billets—		
Up to 20 feet .. .. .	Ton weight	90 0
Over 20 feet and up to 30 feet .. .. .	Ton weight	100 0
Tin clippings, hydraulically pressed .. .. .	Ton weight	113 0
Leather .. .. .	Ton weight	494 0
Timber—		
Logs up to 40 feet lengths .. .. .	100 super. ft.	78 2
Logs over 40 feet and up to 50 feet lengths .. .. .	100 super. ft.	83 11
Logs over 50 feet and up to 60 feet lengths .. .. .	100 super. ft.	90 0
Sawn undressed up to 30 feet—shipment of less than 50 tons .. .. .	100 super. ft.	41 5
Toilet paper .. .. .	Ton measurement	240 0
Stationery—		
Note paper and/or envelopes .. .. .	Ton measurement	370 0
Other than above .. .. .	Ton measurement	384 0
Casein .. .. .	Ton weight	294 0
Fertilizers .. .. .	Ton measurement	287 0
Soap .. .. .	Ton measurement	224 6
Gold and silver specie .. .. .	Ad valorem	15 0%
CEYLON—		
Flour, wheat .. .. .	Ton weight	144 0
Milk and cream—		
Condensed .. .. .	Ton measurement	244 6
Frozen .. .. .	Ton measurement	422 0
General cargo .. .. .	Ton weight or measurement	244 6
INDIA—		
Milk products in cases, cartons, etc. .. .. .	Ton measurement	186 0
Wheat in bags .. .. .	Ton weight	138 0
Wool—		
Greasy .. .. .	lb.	0 3.24
Scoured, etc. .. .. .	lb.	0 4.15
Zinc bars .. .. .	Ton weight	117 6
General cargo .. .. .	Ton weight or measurement	217 6
SOUTH AFRICA—		
Wool—		
Greasy .. .. .	lb.	0 3.25
Scoured, etc. .. .. .	lb.	0 4.00
General cargo .. .. .	Ton weight or measurement	209 0
CHINA—		<i>Rates—Australian</i>
Flour .. .. .	2,000 lb.	152 6
Wheat .. .. .	Ton	150 0
Wool—		
Greasy .. .. .	lb.	0 3
Scoured, etc. .. .. .	lb.	0 3.49
General cargo .. .. .	Ton weight or measurement	262 6

OVERSEA SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31ST DECEMBER, 1962—*continued*

Article and country	Unit for which freight rate is quoted	Freight rate
		<i>Rates— Australian s. d.</i>
HONG KONG—		
Sugar.. .. .	Ton weight	147 0
Wheat .. .. .	Ton weight	150 0 net
Wool—		
Greasy .. .. .	lb.	0 3
Scoured, etc. .. .. .	lb.	0 3.49
General cargo .. .. .	Ton weight or measurement	262 6
JAPAN—		
Cattle hides, wet salted .. .. .	Ton weight	262 6
Coal .. .. .	Ton weight	214 0
Copper ores and concentrates—		
Parcels .. .. .	Ton weight	161 6
Bulk .. .. .	Ton weight	126 0
Iron and steel scrap—		
Loose .. .. .	Ton weight	240 0
4-cwt. drums .. .. .	Ton weight	190 0
Over 4-cwt. drums .. .. .	Ton weight	170 0
Iron, pig .. .. .	Ton weight	105 0
Lead ores and concentrates—		
Parcels .. .. .	Ton weight	161 6
Bulk .. .. .	Ton weight	126 0
Sugar.. .. .	Ton weight	147 0
Wheat .. .. .	Ton weight	150 0 net
Wool—		
Greasy .. .. .	lb.	0 3.32
Scoured, etc. .. .. .	lb.	0 3.86
Zinc ores and concentrates—		
Parcels .. .. .	Ton weight	161 6
Bulk .. .. .	Ton weight	126 0
General cargo .. .. .	Ton weight or measurement	262 6
MALAYA—		
Milk products—		
Condensed—		
From eastern Australian ports .. .. .	Ton measurement	230 0
From Western Australian ports .. .. .	Ton measurement	210 0
Powdered in bags—		
From eastern Australian ports .. .. .	Ton weight	312 6
From Western Australian ports .. .. .	Ton weight	287 6
Powdered in cases or cartons—		
From eastern Australian ports .. .. .	Ton weight or measurement	230 0
From Western Australian ports .. .. .	Ton weight or measurement	210 0
Flour—		
From eastern Australian ports .. .. .	2,000 lb.	137 6
From Western Australian ports .. .. .	2,000 lb.	127 6
General freight—		
From eastern Australian ports .. .. .	Ton weight or measurement	249 0
From Western Australian ports .. .. .	Ton weight or measurement	229 0
INDONESIA—		
Flour—		
From eastern Australian ports .. .. .	2,000 lb.	137 6
From Western Australian ports .. .. .	2,000 lb.	127 6
General freight—		
From eastern Australian ports .. .. .	Ton weight or measurement	249 0
From Western Australian ports .. .. .	Ton weight or measurement	229 0
CANADA—EAST COAST AND ST. LAWRENCE PORTS TO MONTREAL—		<i>Rates— Canadian Dollars</i>
Fruit—		
Canned .. .. .	Ton measurement	35.50
Dried .. .. .	Ton measurement	28.00
Preserved .. .. .	Ton measurement	38.35
Wine .. .. .	Ton measurement	43.15
Wool—greasy .. .. .	100 lb.	4.375
General cargo .. .. .	Ton measurement	43.30

**OVERSEA SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31st DECEMBER, 1962—continued**

Article and country	Unit for which freight rate is quoted	Freight rate
<b>UNITED STATES OF AMERICA—ATLANTIC AND GULF PORTS—</b>		<i>Rates— U.S. Dollars</i>
Beef, preserved by cold process—		
Quarters, etc. .. .. .	100 lb. gross weight	4.25
Cartons .. .. .	100 lb. net weight	3.75
Casein .. .. .	Ton weight	42.70
Fish, preserved by cold process—		
Loose .. .. .	Ton weight	64.35
Cartons .. .. .	100 lb.	3.50
Lead—		
Ores and concentrates .. .. .	Ton weight	22.50
Unwrought .. .. .	Ton weight	19.00
Mutton preserved by cold process—		
Carcasses .. .. .	100 lb. gross weight	4.60
Cuts in cartons .. .. .	100 lb. net weight	3.75
Pipes and tubes of iron and steel .. .. .	Ton weight	30.00
Wool—		
Greasy .. .. .	100 lb.	4.375
Scoured, etc. .. .. .	100 lb.	5.25
General cargo .. .. .	Ton weight or measurement	43.30

Interstate rates per ton weight or measurement for general cargo at 31st December, 1962, (expressed in Australian currency) were:—Sydney—Melbourne, 157s.; Sydney—Brisbane, 161s.; Sydney—Adelaide, 182s.; Sydney—Fremantle, 243s.; Sydney—Hobart, 147s.; Sydney—Darwin, 258s. 6d.

4. **Depth of Water at Main Ports.**—A table showing the depth of water available and tides at principal ports of Australia is published in the annual bulletin, *Transport and Communication*. For some major ports, information is given in Chapter XIX. Local Government.

5. **Shipping Casualties.**—Courts of Marine Inquiry are constituted by a magistrate assisted by skilled assessors, and, when necessary, are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault. Particulars of shipping losses and casualties reported on or near the coast during each of the years 1958 to 1962 are shown in the table below.

**SHIPPING CASUALTIES TO OVERSEA AND INTERSTATE STEAM AND MOTOR VESSELS(a): AUSTRALIA**

Year	Shipping losses			Other shipping casualties			Total shipping casualties		
	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost
1958 ..	1	98	5	179	525,528	..	180	525,626	5
1959 ..	2	346	1	200	623,475	9	202	623,821	10
1960 ..	..	..	..	183	570,987	..	183	570,987	..
1961 ..	..	..	..	177	589,080	..	177	589,080	..
1962 ..	..	..	..	121	480,088	1	121	480,088	1

(a) Vessels over 50 net tons.

6. **Ferry (Passenger) Services.**—For particulars of ferry passenger services operating in several States see page 608.

## GOVERNMENT RAILWAYS

1. **General.**—The policy of government ownership and control of railways has been adopted generally throughout Australia, and, although a number of private railways exist, most of them are light railways intended primarily to transport goods involved in the commercial operations of their owners. There are three main gauges in use in the several States (5 ft. 3 in., 4 ft. 8½ in. and 3 ft. 6 in.), but in recent years considerable progress has been made towards the standardization of main trunk routes (*see* para. 3 below).

In the tables in this division, details of the four lines owned by the Commonwealth are grouped and shown with the totals for the various State-owned systems. Separate particulars for each Commonwealth line and more detailed statistics for all lines are shown in the annual bulletin, *Transport and Communication*.

2. **Railway Communication in Australia.**—An account of the progress of railway construction in Australia since the opening of the first line in 1854 was given in Official Year Book No. 6, page 681, and in No. 22, page 259. The main ports on the mainland are connected by lines running approximately parallel to the coast and are the focal points of lines which radiate inland to the agricultural, mining and pastoral areas of the continent to a distance of up to 600 miles at some points. However, Darwin in the Northern Territory is not connected by rail to any other port. A 3 ft. 6 in. gauge railway extends southward from Darwin to Birdum, a distance of 317 miles, and from Port Augusta in South Australia a 4 ft. 8½ in. gauge railway of 217 miles extends northwards to Marree and thence as a 3 ft. 6 in. gauge of 540 miles to Alice Springs.

3. **Standardization of Railway Gauges.**—The first step towards uniform gauge railway communication between the capitals of the mainland States was effected in 1930 with the construction of the 4 ft. 8½ in. gauge line from Grafton to South Brisbane. The finance required for the construction was provided by the Commonwealth Government. For details of the agreement between the Commonwealth and New South Wales and Queensland, *see* Official Year Book No. 31, page 122. This line is operated by the New South Wales Railways, and details of operations in New South Wales are included with those of the New South Wales system. Details of operations on the Queensland portion are included with Queensland railway statistics unless otherwise specified.

In March, 1944, the late Sir Harold Clapp, Director-General of Land Transport, Commonwealth Department of Transport, and formerly Chairman of Commissioners, Victorian Railways, was requested by the Commonwealth Government to submit a report and recommendation regarding the standardization of Australia's railway gauges on the basis of a 4 ft. 8½ in. gauge. A summary of his report and recommendations, made in March, 1945, together with an outline of the agreement between the Commonwealth Government and the States of New South Wales, Victoria and South Australia regarding the standardization of railway gauges in their respective States, was published in Official Year Book No. 37, pages 146–9. The agreement, which was signed in 1946, was ratified by the Governments of the Commonwealth, of Victoria and of South Australia, but not by the New South Wales Government. After some time had elapsed and New South Wales had not ratified the agreement, the Commonwealth Government decided to enter into a separate agreement with South Australia, and the necessary legislation was enacted in 1949 by each Government concerned. The Commonwealth–South Australia Agreement provides for the same standardization work to be carried out in South Australia as would have been carried out had New South Wales ratified the original Commonwealth–Three States Agreement, and that the Commonwealth shall provide all funds required under the Agreement, with 30 per cent. of such moneys being repaid by South Australia over a period of years, while the Commonwealth shall meet the full cost of works on Commonwealth railways in South Australia.

At the request of the South Australian Government, an amendment to the Agreement was approved to enable, as an interim measure, the narrow gauge (3 ft. 6 in.) lines in the South–Eastern Division of the State railways system to be converted to the wide gauge (5 ft. 3 in.). This work was completed in 1959 at a cost of £5 million. Construction and conversion work on the Central Australian Railway between Stirling North and Marree, 216 miles, has been completed by Commonwealth Railways at a cost of £12.2 million, but other projects included in the Agreement have not yet been commenced. However, the Commonwealth Government has made available £50,000 to South Australia for



surveying the proposed Broken Hill to Port Pirie standard gauge line. In 1961, the Commonwealth undertook to provide £1.3 million, outside the Standardization Agreement, for the purchase of diesel-electric locomotives and ore wagons for use on the existing narrow gauge line on this route, the State to bear the cost of their subsequent conversion for operation on standard gauge track.

As a further step towards standardization, a Committee consisting of members of the Federal Parliament was formed in March, 1956, to ascertain whether a scheme confined to the main trunk routes would be desirable. This Committee recommended in October, 1956, that standard gauge (4 ft. 8½ in.) lines be provided from Wodonga to Melbourne, from Broken Hill to Adelaide via Port Pirie and from Kalgoorlie to Fremantle via Perth.

In 1962, the opening of a new uniform gauge line between Albury and Melbourne enabled the operation of through services between Sydney and Melbourne. An agreement on this project was reached between the Commonwealth and the two States, New South Wales and Victoria, whereby the Commonwealth would meet 70 per cent. of the cost of unification and the two States would share equally the remaining 30 per cent., with the Commonwealth advancing the whole of the necessary funds initially, and the States' portion, plus interest, being repayable over 50 years. Legislation was enacted by the Commonwealth and the two State Governments in three separate Acts assented to towards the close of 1958. Estimated total cost for the project is £15.5 million. The cost of operations of, and the revenue derived from, the line are based proportionately on a Sydney-Melbourne mileage basis. Details of operations are included in the statistics of the respective States.

In 1961, the Commonwealth and Western Australian Governments enacted legislation to enter into an Agreement to undertake certain standard gauge railway works, including the provision of rolling stock, in that State, at an estimated cost of £41.2 million. The proposal is linked with the establishment of an integrated iron and steel industry at Kwinana in Western Australia, and the new railway facilities will be used to transport iron ore from the Koolyanobbing deposits some 33 miles beyond Southern Cross. These railway facilities will also link Kalgoorlie with Perth and Fremantle by a standard gauge line. It has been agreed that the project has standardization and developmental components in approximately equal parts, and, initially, the Commonwealth will in effect provide finance for all of the standardization portion of the works and 70 per cent. of the developmental portion. The State will repay with interest over a period, 30 per cent. of the standardization costs and all the advance for developmental works. Work on the project commenced in 1962 and is planned to be completed by December, 1968.

4. **Mileage Open for Traffic, all Lines.**—The following table shows the route-mileage of Commonwealth and State lines open in each State and Territory at various periods since the inauguration of railways in Australia in 1854.

#### GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN

(Miles)

At 30th June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1855(a) ..	14	2	..	7	..	..	..	..	23
1861(a) ..	73	114	..	56	..	..	..	..	243
1871(a) ..	358	276	218	133	..	45	..	..	1,030
1881(a) ..	996	1,247	800	832	92	45	..	..	4,012
1891 ..	2,182	2,763	2,195	1,666	198	351	145	..	9,500
1901 ..	2,846	3,237	2,801	1,736	1,355	457	145	..	12,577
1911 ..	3,762	3,523	3,868	1,935	2,376	470	145	..	16,079
1921 ..	5,043	4,267	5,752	3,408	3,992	630	199	5	23,296
1931 ..	6,247	4,514	6,529	3,898	4,634	665	317	5	26,809
1941 ..	6,368	4,518	6,567	3,809	4,835	642	490	5	27,234
1951 ..	6,354	4,445	6,560	3,805	4,682	613	490	5	26,954
1961 ..	6,303	4,050	6,324	3,836	4,577	517	490	5	26,102
1962 ..	6,304	4,050	6,077	3,835	4,305	516	490	5	25,582

(a) At 31st December.

At 30th June, 1962, 264 route-miles in Victoria and 233 route-miles in New South Wales were electrified.

5. Classification of Lines according to Gauge, at 30th June, 1962.—The next table shows the route-mileage of government railways open in each State and Territory classified according to gauge, and State totals in relation to population and area at 30th June, 1962.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, AT 30th JUNE, 1962  
(Miles)

Gauge	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
5 ft. 3 in. ..	(a) 241	(b) 3,815	..	1,673	..	..	..	..	5,729
4 ft. 8½ in. ..	(c) 6,063	201	(d) 69	(e) 871	(e) 454	..	..	(e) 5	7,663
3 ft. 6 in. ..	..	..	5,978	(f) 1,291	3,851	516	(r) 490	..	12,126
2 ft. 6 in. ..	..	34	..	..	..	..	..	..	34
2 ft. 0 in. ..	..	..	30	..	..	..	..	..	30
<b>Total ..</b>	<b>6,304</b>	<b>4,050</b>	<b>6,077</b>	<b>3,835</b>	<b>4,305</b>	<b>516</b>	<b>490</b>	<b>5</b>	<b>25,582</b>
Per 1,000 of population ..	1.59	1.35	3.94	3.88	5.71	1.45	17.63	0.08	2.39
Per 1,000 square miles ..	20.37	46.08	9.11	10.09	4.41	19.68	0.94	5.32	8.61

(a) Portion of Victorian system. (b) Excludes 201 miles of 5 ft. 3 in. gauge line which roughly parallels the uniform gauge (4 ft. 8½ in.) line between Albury and Melbourne. (c) Includes 112 route-miles of Grafton-South Brisbane Uniform Gauge Railway. (d) Queensland section of Grafton-South Brisbane Uniform Gauge Line. (e) Portion of Commonwealth system. (f) Includes 432 miles of Commonwealth system.

6. Summary of Operations.—In the following table, a summary is shown of the operations of government railways open in Australia during 1961–62. Figures for earnings exclude State government grants and certain other earnings payable to railways, while figures for working expenses exclude certain other expenses charged to railways (see para. 10, p. 595).

GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, 1961–62

Particulars	Commonwealth railways	State railways	Total
Route-mileage (30th June) .. .. miles	2,252	23,330	25,582
Track-mileage (30th June) .. .. miles	2,456	29,706	32,162
Gross earnings .. .. £'000	6,241	201,243	207,484
Working expenses .. .. £'000	611	536	538
Net earnings .. .. £'000	5,165	197,082	202,247
Revenue train-miles .. .. pence	505	525	524
Passenger-journeys .. .. '000	1,077	4,161	5,238
Goods and livestock carried .. .. '000 tons	105	11	14
Average number of employees .. ..	2,453	90,129	92,582
Wages and salaries paid per employee .. .. £	315	443,004	443,319
	1,958	53,607	55,565
	2,861	132,177	135,038
	1,165	1,132	1,133

A graph showing the route-mileage and traffic of government railways from 1870 to 1961–62 appears on page 603.

7. Gross Earnings.—(i) General. Gross earnings are composed of earnings from (a) coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) carriage of goods and livestock; and (c) rents and miscellaneous items. State Government grants are excluded. Details of these grants made during 1961–62 are shown in para. 10, page 595.

(ii) *Coaching, Goods and Miscellaneous Earnings.* (a) *Summary.* In the following table, gross earnings are shown for the years 1957-58 to 1961-62, together with earnings per average route-mile worked and per revenue train-mile.

### GOVERNMENT RAILWAYS: GROSS EARNINGS(a)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	C'wealth	Aust.
GROSS EARNINGS (£'000)								
1957-58 ..	74,433	35,954	34,636	13,160	12,788	2,569	4,605	178,145
1958-59 ..	75,930	38,150	36,169	12,856	13,516	2,707	4,817	184,145
1959-60 ..	83,563	39,190	35,671	12,758	14,846	2,808	5,327	194,163
1960-61 ..	89,751	42,987	36,530	13,870	16,317	2,732	6,036	208,223
1961-62 ..	88,351	42,557	36,159	13,924	17,549	2,703	6,241	207,484

### GROSS EARNINGS PER AVERAGE ROUTE-MILE WORKED (£)

1957-58 ..	12,195	8,168	5,365	5,193	3,106	4,492	2,041	6,738
1958-59 ..	12,441	8,756	5,628	5,075	3,283	4,782	2,139	6,987
1959-60 ..	13,681	9,130	5,562	5,037	3,603	4,978	2,365	7,388
1960-61 ..	14,806	10,020	5,751	5,476	3,958	5,127	2,680	7,964
1961-62 ..	14,572	9,918	5,917	5,499	4,557	5,239	2,772	8,100

### GROSS EARNINGS PER REVENUE TRAIN-MILE (Pence)

1957-58 ..	510.11	470.15	436.78	446.05	418.89	393.28	578.47	473.52
1958-59 ..	517.78	496.89	444.96	447.80	420.87	421.99	572.76	484.13
1959-60 ..	545.26	514.47	449.26	444.59	447.53	434.79	596.86	502.90
1960-61 ..	568.37	565.88	478.77	482.09	500.86	432.50	618.32	537.21
1961-62 ..	566.25	540.33	494.11	496.04	522.22	458.37	610.58	537.86

(a) Excludes government grants; see para. 10, p. 595.

(b) *Distribution.* The following table shows gross earnings for the year 1961-62 classified according to the three main sources of earnings together with the percentage of the total derived from each source.

### GOVERNMENT RAILWAYS: DISTRIBUTION OF GROSS EARNINGS(a), 1961-62.

Railway system	Gross earnings (£'000)			Proportion of total (per cent.)		
	Coaching	Goods and livestock	Miscellaneous	Coaching	Goods and livestock	Miscellaneous
New South Wales ..	22,982	61,424	3,945	26.01	69.52	4.47
Victoria ..	13,922	25,733	2,902	32.71	60.47	6.82
Queensland ..	4,840	30,177	1,142	13.39	83.45	3.16
South Australia ..	2,072	10,880	972	14.88	78.14	6.98
Western Australia ..	1,649	15,114	786	9.40	86.12	4.48
Tasmania ..	197	2,411	95	7.29	89.21	3.50
Commonwealth ..	1,129	4,671	441	18.09	74.85	7.06
<b>Australia ..</b>	<b>46,791</b>	<b>150,410</b>	<b>10,283</b>	<b>22.55</b>	<b>72.49</b>	<b>4.96</b>

(a) Excludes government grants; see para. 10 p. 595.

8. *Working Expenses.*—(i) *General.* In comparing the working expenses of the several States and Territories, allowance should be made for the variation of gauges and of physical and traffic conditions, not only on the different systems of the State and Commonwealth railways, but also on different portions of the same system.

Working expenses, wherever presented in the Railways section of this chapter, include reserves for depreciation in South Australia, Western Australia and Tasmania but exclude interest, sinking fund, exchange and certain other payments (*see para. 10*).

(ii) *Working Expenses.* The following table shows the total working expenses, the ratio of working expenses to gross earnings, and working expenses per average route-mile worked, and per revenue train-mile for the years 1957-58 to 1961-62.

GOVERNMENT RAILWAYS: WORKING EXPENSES<sup>(a)</sup>

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	C'wealth	Aust.
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## TOTAL WORKING EXPENSES

(£'000)

1957-58 ..	72,534	38,174	36,862	15,953	16,091	3,218	3,611	186,443
1958-59 ..	71,102	38,119	37,461	15,102	16,307	3,215	3,647	184,953
1959-60 ..	76,492	39,542	38,309	15,325	16,907	3,363	4,154	194,092
1960-61 ..	79,556	41,627	38,529	15,310	17,147	3,545	4,629	200,343
1961-62 ..	79,595	42,906	38,085	15,603	17,454	3,439	5,165	202,247

## RATIO OF WORKING EXPENSES TO GROSS EARNINGS

(Per cent.)

1957-58 ..	97.45	106.17	106.43	121.23	125.83	125.24	78.43	104.65
1958-59 ..	93.64	99.92	103.57	117.47	120.65	118.79	75.72	100.43
1959-60 ..	91.54	100.90	107.40	120.11	113.88	119.77	77.98	99.96
1960-61 ..	88.64	96.84	105.47	110.38	105.08	129.75	76.68	96.22
1961-62 ..	90.09	100.82	105.33	112.06	99.46	127.21	82.75	97.47

## WORKING EXPENSES PER AVERAGE ROUTE-MILE WORKED

(£)

1957-58 ..	11,884	8,672	5,710	6,296	3,908	5,625	1,601	7,052
1958-59 ..	11,650	8,749	5,829	5,962	3,961	5,680	1,620	7,018
1959-60 ..	12,523	9,213	5,974	6,050	4,103	5,963	1,845	7,385
1960-61 ..	13,124	9,703	6,066	6,044	4,159	6,652	2,055	7,663
1961-62 ..	13,128	9,999	6,232	6,162	4,532	6,665	2,294	7,895

## WORKING EXPENSES PER REVENUE TRAIN-MILE

(Pence)

1957-58 ..	497.09	499.18	464.85	540.73	527.06	492.53	453.67	495.58
1958-59 ..	484.85	496.49	460.85	526.04	507.78	501.28	433.68	486.26
1959-60 ..	499.12	519.09	482.50	534.03	509.63	520.72	465.43	502.72
1960-61 ..	503.81	547.98	504.97	532.15	526.33	561.17	474.15	516.88
1961-62 ..	510.14	544.76	520.42	555.86	519.39	583.10	505.28	524.28

(a) *See para. 10, p. 595.*

(iii) *Distribution.* The following table shows the total working expenses for the year 1961-62 classified according to the four main expenditure headings.

# GOVERNMENT RAILWAYS: DISTRIBUTION OF WORKING EXPENSES, 1961-62

(£'000)

Railway system	Maintenance of way and works	Motive power(a)	Traffic	Other charges	Total working expenses(b)
New South Wales .. ..	14,031	29,411	19,793	16,360	79,595
Victoria .. ..	8,504	11,795	11,836	10,771	42,906
Queensland .. ..	9,514	17,512	8,836	2,223	38,085
South Australia(c) .. ..	3,459	6,407	3,864	1,873	15,603
Western Australia .. ..	(c) 3,767	(c) 7,822	3,892	1,973	17,454
Tasmania(c) .. ..	865	1,327	841	406	3,439
Commonwealth .. ..	1,996	1,806	989	374	5,165
<b>Australia .. ..</b>	<b>42,136</b>	<b>76,080</b>	<b>50,051</b>	<b>33,980</b>	<b>202,247</b>

(a) Includes maintenance of rolling stock.  
of reserves for depreciation.

(b) See para. 10, p. 595.

(c) Includes provision

9. *Net Earnings.*—The following table shows, for the years 1957-58 to 1961-62, net earnings, i.e., the excess of gross earnings over working expenses and the amount of such net earnings per average route-mile worked and per revenue train-mile.

# GOVERNMENT RAILWAYS: NET EARNINGS(a)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	C'wealth	Aust.
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## TOTAL NET EARNINGS

(£'000)

1957-58 ..	1,899	- 2,220	- 2,226	- 2,793	- 3,303	- 649	994	- 8,298
1958-59 ..	4,828	31	- 1,292	- 2,246	- 2,791	- 508	1,170	- 808
1959-60 ..	7,071	- 352	- 2,638	- 2,567	- 2,061	- 555	1,173	71
1960-61 ..	10,195	1,360	- 1,999	- 1,440	- 830	- 813	1,407	7,880
1961-62 ..	8,756	- 349	- 1,926	- 1,679	95	- 736	1,077	5,238

## NET EARNINGS PER AVERAGE ROUTE-MILE WORKED

(£)

1957-58 ..	311	- 504	- 345	- 1,103	- 802	- 1,133	440	- 314
1958-59 ..	791	7	- 201	- 887	- 678	- 898	519	- 31
1959-60 ..	1,158	- 83	- 412	- 1,013	- 500	- 985	520	3
1960-61 ..	1,682	317	- 315	- 568	- 201	- 1,525	625	301
1961-62 ..	1,444	- 81	- 315	- 663	25	- 1,426	478	205

## NET EARNINGS PER REVENUE TRAIN-MILE

(Pence)

1957-58 ..	13.02	-29.03	-28.07	-94.68	-108.17	- 99.25	124.80	-22.06
1958-59 ..	32.93	0.40	-15.89	-78.24	- 86.91	- 79.29	139.08	- 2.13
1959-60 ..	46.14	- 4.62	-33.24	-89.44	- 62.10	- 85.93	131.43	0.18
1960-61 ..	64.56	17.90	-26.20	-50.06	- 25.47	-128.67	144.17	20.33
1961-62 ..	56.11	- 4.43	-26.31	-59.82	2.83	-124.73	105.30	13.58

(a) See para. 10, p. 595.

NOTE.—Minus sign (-) denotes loss.

10. Net Earnings, Grants to Railways, Interest, Sinking Fund, Surplus or Deficit, 1961-62.—The following table shows, for each railway system for the year 1961-62, (i) net earnings as in para. 9 above, (ii) State grants and other items credited to railways accounts, (iii) loan interest, exchange, sinking fund, etc., payments charged against the accounts, and (iv) the net surplus or deficit after these items have been taken into account. Particulars of items (ii) to (iv) are not included in the preceding tables in this section.

The figures shown in this table accord with those published in the Annual Reports of the Railways Commissioners of the several systems. Because of the differences in governmental practice in regard to costs other than operative charged against railways accounts, compensation for non-paying and developmental lines, etc., and the inclusion in some railways finances of the operations of ancillary transport services, direct comparison cannot be made between the results shown in the table.

## GOVERNMENT RAILWAYS: SURPLUS OR DEFICIT AT 30th JUNE, 1962

(£)

System	Net earnings—excess of gross earnings over working expenses(a)	Plus grants and other income	Less other expenses charged to railways					Surplus (+) or deficit (—)
			Loan interest and exchange	Sinking fund	Loan management expenses	Other	Total	
State—								
N.S.W. ..	8,755,663	b 1,800,000	10,600,600	2,155,210	28,260	c 153,930	12,938,000	— 2,382,337
Victoria ..	— 348,987	(d) 14,566	(e)	..	..	(f) 36,024	36,024	(g) — 370,445
Queensland ..	— 1,925,463	(h) 45,139	4,422,884	..	..	i 192,900	4,615,784	(j) — 6,496,108
S. Australia ..	— 1,679,164	k 4,100,000	2,243,731	..	..	(l) 88,498	2,332,229	(g) 88,607
W. Australia ..	95,109	(m) 31,022	2,535,508	..	..	..	2,535,508	g — 2,409,377
Tasmania ..	— 735,606	..	432,691	..	..	..	432,691	— 1,168,297
Total, States ..	4,161,552	5,990,727	20,235,414	2,155,210	28,260	471,352	22,890,236	— 12,737,957
Commonwealth ..	1,076,459	3,960	..	..	..	1,244,506	1,244,506	— 164,087
Australia ..	5,238,011	5,994,687	20,235,414	2,155,210	28,260	1,715,858	24,134,742	— 12,902,044

(a) See para. 9, p. 594. (b) Grants to meet losses on country development lines, £1,000,000, and to subsidize payments due from superannuation account, £800,000. (c) Loan flotation expenses. (d) Kerang-Koondrook Tramway recoup from Treasury. (e) As a result of legislation, interest and other charges are not now debited to departmental accounts. (f) Net loss on road motor services not included in previous pages. (g) Includes road motor services. (h) Adjustment for deficit on Queensland portion of Uniform Gauge Railway as included in foregoing tables. (i) Interest on unopened lines. (j) Excludes Queensland portion of Uniform Gauge Railway. (k) Grants towards working expenses, £3,300,000, and debt charges, £800,000. (l) Interest and repayment under Railways Standardization Agreement, £86,173, and net loss on road motor services not included in foregoing tables, £2,325. (m) Net profit on road motor services. (n) Includes depreciation and obsolescence, insurance, salary of Commissioner, audit expenses, and superannuation and furlough liability.

Note.—For further information on railways finance, in particular expenditure from loan and other funds, see Chapter XXI. Public Finance of this Year Book. See also the Reports of the several Railways Commissioners.

11. Traffic.—(i) General. The following table shows particulars of railway passenger and goods traffic for the years 1957-58 to 1961-62.

## GOVERNMENT RAILWAYS: TRAFFIC

Year	N.S.W.	Vic.	O'land (a)	S. Aust.	W. Aust.	Tas.	C'wealth	Aust.
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PASSENGER-JOURNEYS (SUBURBAN AND COUNTRY)(b)  
(<sup>'000</sup>)

						(c)		
1957-58	..	240,746	167,662	33,665	17,564	14,106	2,444	238
1958-59	..	236,030	163,483	33,457	16,805	14,615	2,344	259
1959-60	..	236,573	158,294	32,347	17,038	13,879	2,292	275
1960-61	..	235,416	149,929	28,876	15,574	12,661	2,103	303
1961-62	..	234,638	152,768	26,700	15,176	11,906	1,816	315

PASSENGER-JOURNEYS (SUBURBAN AND COUNTRY) PER AVERAGE ROUTE-MILE WORKED  
(Number)

						(c)		
1957-58	..	39,447	38,088	5,214	6,931	3,426	4,273	106
1958-59	..	38,674	37,522	5,207	6,634	3,550	4,141	115
1959-60	..	38,732	36,881	5,044	6,726	3,369	4,065	122
1960-61	..	38,835	34,948	4,546	6,147	3,071	3,946	134
1961-62	..	38,700	35,602	4,369	5,994	3,092	3,519	140

GOODS AND LIVESTOCK CARRIED  
(<sup>'000</sup> tons)

1957-58	..	d 18,502	8,892	7,766	4,146	3,589	1,096	1,259	45,250
1958-59	..	19,700	9,295	8,373	4,207	3,913	1,138	1,405	48,031
1959-60	..	22,127	9,687	8,116	4,036	4,533	1,191	1,482	51,172
1960-61	..	24,104	10,977	7,981	4,537	4,833	1,192	1,738	55,362
1961-62	..	24,050	10,350	8,153	4,616	5,342	1,096	1,958	55,565

GOODS AND LIVESTOCK CARRIED PER AVERAGE ROUTE-MILE WORKED  
(Tons)

1957-58	..	3,032	2,020	1,203	1,636	872	1,916	558	1,711
1958-59	..	3,228	2,133	1,303	1,661	950	2,010	624	1,823
1959-60	..	3,623	2,257	1,266	1,594	1,100	2,111	658	1,947
1960-61	..	3,976	2,559	1,256	1,791	1,172	2,236	772	2,118
1961-62	..	3,967	2,412	1,334	1,823	1,387	2,124	869	2,169

(a) Traffic originating on the 3 ft. 6 in. gauge system and continuing on the Uniform Gauge Railway, or vice versa, has been counted once only. (b) Based on ticket sales, making allowances for periodical tickets. Except in Tasmania, tickets sold at concession rates are counted as full journeys. (c) Concession tickets are counted according to the proportion of the adult fare charged. (d) Partly estimated.

(ii) *Passenger Traffic.* With the exception of the Commonwealth railway systems, which operate only country services, all systems provide both suburban and country passenger services. Traffic classed as "suburban" moves between stations within a classified suburban area around each capital city, whilst traffic classified as "country" originates or terminates at stations outside this suburban area. Particulars of suburban and country passenger traffic are shown separately in the two tables following.

(a) *Suburban Passenger Traffic.* The following table shows a summary of suburban passenger operations for the years 1957-58 to 1961-62. Most of the suburban services in New South Wales and Victoria are operated within electrified areas.

## GOVERNMENT RAILWAYS: SUBURBAN PASSENGER SUMMARY

Year	Suburban passenger journeys (a)	Suburban revenue passenger train-miles	Suburban passenger miles	Average number of passengers per train-mile	Average mileage per passenger journey	Suburban passenger earnings			
						Gross	Per passenger journey	Per passenger-mile	Per passenger train-mile
	('000)	('000)	('000)		(Miles)	(£'000)	(Pence)	(Pence)	(Pence)

## NEW SOUTH WALES

1957-58	226,283	11,158	(c)	(c)	(c)	(c)	(c)	(c)	(c)
1958-59	221,713	11,175				12,027	13.02	(c)	258
1959-60	221,788	11,212				12,222	13.23	(c)	262
1960-61	222,333	11,176				12,755	13.77	(c)	274
1961-62	221,861	11,250				12,745	13.79	(c)	272

## VICTORIA

1957-58	162,632	8,353	1,433,794	172	8.82	7,613	11.24	1.27	219
1958-59	158,613	8,310	1,364,884	164	8.61	8,511	12.88	1.50	246
1959-60	153,660	7,999	1,349,319	169	8.79	8,826	13.78	1.57	265
1960-61	145,558	7,902	1,282,975	162	8.81	8,885	14.65	1.66	270
1961-62	147,977	8,296	1,299,379	157	8.78	9,006	14.61	1.66	261

## QUEENSLAND

1957-58	28,524	2,082	(c)	(c)	(c)	890	7.49	(c)	103
1958-59	28,398	2,127				889	7.52	(c)	100
1959-60	27,548	2,131				865	7.54	(c)	97
1960-61	24,582	2,009				962	9.39	(c)	115
1961-62	22,890	1,850				977	10.25	(c)	127

## SOUTH AUSTRALIA

1957-58	16,390	2,065	131,179	63	8.00	702	10.28	1.28	82
1958-59	15,704	2,087	125,391	60	7.98	706	10.79	1.35	81
1959-60	15,997	2,134	128,183	60	8.01	792	11.89	1.48	89
1960-61	14,584	2,082	117,423	56	8.05	795	13.08	1.62	92
1961-62	14,211	1,962	114,852	59	8.08	781	13.19	1.63	96

## WESTERN AUSTRALIA

1957-58	13,353	1,323	91,755	69	6.87	420	7.54	1.10	76
1958-59	13,880	1,320	93,958	71	6.77	434	7.50	1.11	79
1959-60	13,171	1,343	90,003	67	6.83	478	8.70	1.27	85
1960-61	12,026	1,357	82,612	61	6.87	484	9.65	1.41	86
1961-62	11,308	1,355	78,469	58	6.94	469	9.95	1.43	83

## TASMANIA

	(d)								
1957-58	2,122	204	12,895	63	6.08	54	6.14	1.01	64
1958-59	2,092	210	12,632	60	6.04	53	6.11	1.01	61
1959-60	2,031	206	12,438	60	6.12	51	5.98	0.98	59
1960-61	1,859	202	11,018	54	5.93	55	7.06	1.19	65
1961-62	1,585	188	9,778	52	6.17	56	8.41	1.36	71

(a) Based on ticket sales, making allowances for periodical tickets. Except in Tasmania, tickets sold at concession rates are counted as full journeys. (b) Estimated. (c) Not available. (d) Concession tickets are counted according to the proportion of the adult fare charged.



(b) *Country Passenger Traffic.* The following table shows a summary of country passenger operations for the years 1957-58 to 1961-62.

### GOVERNMENT RAILWAYS: COUNTRY PASSENGER SUMMARY

Year	Country passenger-journeys (a)	Country revenue passenger train-miles (b)	Country passenger-miles	Average number of passengers per train-mile	Average mileage per passenger-journey	Country passenger earnings			
						Gross.	Per passenger-journey	Per passenger-mile	Per passenger-train-mile
	('000)	('000)	('000)	(c)	(Miles)	(£'000)	(Pence)	(Pence)	(Pence)
NEW SOUTH WALES									
1957-58	14,463	9,762	(d)	(d)	(d)	(d)	(d)	(d)	(d)
1958-59	14,317	9,497				6,984	117.08	(d)	169
1959-60	14,785	9,613				6,570	106.64	(d)	158
1960-61	13,083	9,874				6,825	125.19	(d)	160
1961-62	12,777	10,110				6,948	130.51	(d)	160
VICTORIA									
1957-58	5,030	4,682	418,012	89	83.10	3,493	166.64	2.01	179
1958-59	4,870	4,699	414,539	88	85.12	3,466	170.80	2.01	177
1959-60	4,634	4,588	394,690	86	85.16	3,291	170.44	2.00	172
1960-61	4,371	4,472	388,258	87	88.84	3,248	178.35	2.01	174
1961-62	4,791	4,720	413,435	87	86.31	3,473	174.01	2.02	176
QUEENSLAND									
	(e)		(d)	(d)	(d)				
1957-58	5,141	4,935				2,560	119.53	(d)	118
1958-59	5,059	4,824				2,452	116.31	(d)	116
1959-60	4,799	4,728				2,273	113.70	(d)	110
1960-61	4,294	4,659				2,406	134.50	(d)	119
1961-62	3,810	4,510				2,378	146.56	(d)	115
SOUTH AUSTRALIA									
1957-58	1,174	2,112	112,781	52	96.05	803	164.18	1.71	89
1958-59	1,101	2,058	106,506	51	96.70	778	169.55	1.75	89
1959-60	1,041	2,045	105,386	50	101.31	806	185.89	1.83	93
1960-61	990	2,002	100,683	49	101.69	822	199.31	1.96	98
1961-62	965	2,005	100,591	49	104.24	838	208.50	2.00	99
WESTERN AUSTRALIA									
1957-58	753	1,565	80,171	51	106.41	670	213.51	2.01	103
1958-59	735	1,591	79,155	50	107.64	653	213.23	1.98	99
1959-60	708	1,504	77,450	51	109.32	666	225.56	2.06	106
1960-61	635	1,254	73,900	59	116.34	641	242.11	2.08	123
1961-62	598	1,184	74,230	63	124.12	671	269.10	2.17	136
TASMANIA									
	(f)								
1957-58	322	367	14,471	37	44.91	91	67.53	1.50	55
1958-59	252	252	13,361	41	53.03	86	81.78	1.54	63
1959-60	261	251	13,805	42	52.92	86	79.07	1.49	63
1960-61	244	245	12,940	40	53.10	80	78.59	1.48	59
1961-62	231	242	12,745	39	55.10	80	82.68	1.50	59

NOTE.—For footnotes see next page.

GOVERNMENT RAILWAYS: COUNTRY PASSENGER SUMMARY—*continued*

Year	Country passenger-journeys (a) ( <sup>'000</sup> )	Country revenue passenger train-miles (b) ( <sup>'000</sup> )	Country passenger-miles ( <sup>'000</sup> )	Average number of passengers per train-mile (c)	Average mileage per passenger-journey (Miles)	Country passenger earnings			
						Gross (£'000)	Per passenger-journey (Pence)	Per passenger-mile (Pence)	Per passenger-train-mile (Pence)

COMMONWEALTH(g)									
1957-58	238	718	81,038	113	339.63	736	740.52	2.18	247
1958-59	259	781	80,910	108	312.92	739	685.90	2.19	236
1959-60	275	783	84,371	106	307.57	749	654.89	2.13	225
1960-61	303	773	93,540	113	309.07	838	664.51	2.15	244
1961-62	315	866	100,604	109	319.15	904	688.57	2.16	235

(a) Based on ticket sales, making allowances for periodical tickets. Except in Tasmania, tickets sold at concession rates are counted as full journeys. (b) Excludes mixed-train miles. (c) Passenger-miles divided by passenger train-miles inclusive of a proportion of mixed train miles. (d) Not available. (e) Traffic originating on the 3 ft. 6 in. gauge system and continuing on the Uniform Gauge Railway, or vice versa, has been counted once only. (f) Concession tickets are counted according to the proportion of the adult fare charged. (g) Railways controlled by Commonwealth Government.

NOTE.—Train-miles refer to revenue mileages only.

(iii) *Freight Traffic.* (a) *Commodities Carried and Earnings.* The following table shows the quantities of various commodities carried on the various systems and the earnings derived during 1961-62.

## GOVERNMENT RAILWAYS: COMMODITIES CARRIED AND EARNINGS, 1961-62

Railway system	Coal, coke and briquettes	Other minerals (a)	Agricultural produce (b)	Wool	Livestock	All other commodities	Total
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QUANTITY CARRIED ( <sup>'000</sup> Tons)							
New South Wales ..	10,503	2,267	3,301	230	551	7,198	24,050
Victoria ..	2,275	104	3,120	134	264	4,453	10,350
Queensland(c) ..	1,810	1,252	2,535	47	682	1,827	8,153
South Australia ..	91	1,135	1,487	45	179	1,679	4,616
Western Australia ..	648	405	2,433	79	126	1,651	5,342
Tasmania ..	305	27	38	4	29	693	1,096
Commonwealth ..	1,235	78	35	4	80	526	1,958
<i>Australia</i> ..	<i>16,867</i>	<i>5,268</i>	<i>12,949</i>	<i>543</i>	<i>1,911</i>	<i>18,027</i>	<i>55,565</i>

FREIGHT EARNINGS (£'000)							
New South Wales ..	(d)	(d)	(d)	(d)	3,200	(d)	61,424
Victoria ..	3,645	145	7,462	642	921	12,918	25,733
Queensland(c) ..	3,517	2,734	5,780	857	4,286	13,003	30,177
South Australia ..	70	3,160	2,470	241	608	4,331	10,880
Western Australia ..	1,127	738	5,640	511	399	6,699	15,114
Tasmania ..	506	47	93	16	90	1,659	2,411
Commonwealth ..	707	195	184	25	172	3,388	4,671
<i>Australia</i> ..	<i>(d)</i>	<i>(d)</i>	<i>(d)</i>	<i>(d)</i>	<i>9,676</i>	<i>(d)</i>	<i>150,410</i>

(a) Includes sand and gravel. (b) Includes wheat and fruit. (c) Includes Queensland portion of Uniform Gauge Railway. Tonnages carried over both systems have been counted once only. (d) Not available.

(b) *Freight Summary.* A summary of freight traffic on each railway system for each of the years 1957-58 to 1961-62 is shown in the following table.

## GOVERNMENT RAILWAYS: FREIGHT SUMMARY

Year	Revenue goods train-miles (a)	Revenue net ton-miles	Average train load (paying traffic) (b)	Average haul per ton (c)	Goods and livestock earnings				Density of traffic (d)
					Gross	Per average route-mile worked	Per revenue net ton-mile	Per revenue goods train-mile	
	('000)	(Million)	(Tons)	(Miles)	(£'000)	(£)	(Pence)	(Pence)	('000)
NEW SOUTH WALES									
1957-58	13,290	(e) 2,571	(e) 186	(e) 139	48,229	7,902	4.50	837	(e) 421
1958-59	13,710	2,736	194	139	50,524	8,279	4.43	859	448
1959-60	15,169	3,216	202	146	57,598	9,430	4.30	925	526
1960-61	16,184	3,613	219	150	63,058	10,402	4.19	916	596
1961-62	15,485	3,576	227	149	61,424	10,131	4.12	934	590
VICTORIA									
1957-58	5,286	1,260	238	142	20,849	4,736	3.98	944	286
1958-59	5,394	1,353	250	146	22,126	5,078	3.93	982	310
1959-60	5,672	1,385	244	143	22,876	5,330	3.96	966	323
1960-61	5,836	1,612	276	147	26,582	6,196	3.96	1,091	376
1961-62	5,873	1,581	269	153	25,733	5,997	3.91	1,050	368
QUEENSLAND(f)									
1957-58	10,304	1,326	114	177	27,974	4,380	5.06	578	208
1958-59	10,876	1,463	120	181	29,493	4,639	4.84	582	230
1959-60	10,561	1,515	126	196	29,420	4,637	4.66	586	239
1960-61	10,137	1,472	131	195	29,803	4,743	4.86	635	234
1961-62	9,765	1,461	135	189	29,467	4,877	4.84	653	242
SOUTH AUSTRALIA									
1957-58	2,638	611	214	147	10,302	4,065	4.05	867	241
1958-59	2,501	605	224	144	10,054	3,969	3.99	893	239
1959-60	2,479	596	224	148	9,840	3,885	3.96	886	235
1960-61	2,604	645	232	142	10,906	4,305	4.06	940	255
1961-62	2,546	650	238	141	10,880	4,297	4.02	956	257
WESTERN AUSTRALIA									
1957-58	4,440	572	129	159	10,506	2,552	4.41	568	139
1958-59	4,797	632	132	162	11,243	2,731	4.27	563	154
1959-60	5,115	705	138	156	12,251	2,974	4.17	575	171
1960-61	5,208	748	144	155	13,940	3,381	4.48	642	181
1961-62	5,526	831	150	156	15,114	3,925	4.36	656	216
TASMANIA									
1957-58	919	102	105	93	2,290	4,004	5.38	566	179
1958-59	913	110	110	97	2,426	4,287	5.27	580	195
1959-60	929	119	116	100	2,537	4,498	5.13	597	210
1960-61	910	114	115	95	2,456	4,601	5.19	595	213
1961-62	812	107	119	98	2,411	4,673	5.41	641	207
COMMONWEALTH(g)									
1957-58	918	342	286	272	3,265	1,447	2.29	655	151
1958-59	960	394	311	281	3,476	1,543	2.12	658	175
1959-60	(h)1,084	438	326	296	3,963	1,760	2.17	708	194
1960-61	(h)1,440	549	362	316	4,537	2,015	1.98	717	244
1961-62	(h)1,425	581	380	297	4,671	2,074	1.93	733	258

(a) Excludes mixed train-miles. (b) Net ton-miles per goods (including a portion of mixed) train-miles. (c) Net ton-miles per ton carried. (d) Total ton-miles per average route-mile worked. (e) Partly estimated. (f) Excludes Queensland portion of Grafton-South Brisbane (Uniform Gauge) Line. (g) Railways controlled by the Commonwealth Government. (h) Includes mixed train miles for Trans-Australian Railway, as the trains operated by this railway are predominantly mixed.

12. Rolling Stock.—The following table shows the number of rolling stock of Government railways at 30th June, 1962.

## GOVERNMENT RAILWAYS: ROLLING STOCK(a) AT 30th JUNE, 1962

Railway system	Locomotives				Coaching stock(b)	Goods stock	Service stock
	Steam	Diesel-electric	Other	Total			
New South Wales ..	906	159	57	1,122	(c) 3,626	21,998	de 1,927
Victoria ..	272	105	94	471	cf 2,443	20,942	dg 1,719
Queensland ..	698	73	10	781	1,502	24,492	2,119
South Australia ..	211	64	..	275	(f) 609	7,700	(g) 468
Western Australia ..	290	68	13	371	565	11,343	984
Tasmania ..	51	35	17	103	139	2,564	182
Commonwealth ..	28	37	8	73	186	2,055	571
<b>Australia ..</b>	<b>2,456</b>	<b>541</b>	<b>199</b>	<b>3,196</b>	<b>(h) 9,177</b>	<b>91,094</b>	<b>(h) 7,976</b>

(a) Included in capital account. (b) Includes all brake vans. (c) Excludes 39 interstate coaching stock owned jointly by New South Wales and Victoria. (d) Excludes 5 interstate service stock owned jointly by New South Wales and Victoria. (e) Includes all vehicles. Previous figures have included only vehicles having a capital value. (f) Excludes 68 interstate coaching stock owned jointly by Victoria and South Australia. (g) Excludes one dynamometer car owned jointly by Victoria and South Australia. (h) Includes jointly owned stock.

At 30th June, 1952, steam locomotives numbered 3,696; diesel-electric, 73; other, 30; total, 3,799.

13. Accidents.—The following table shows particulars of the number of persons killed or injured through train accidents and the movement of rolling stock on the government railways of Australia during 1961-62.

## GOVERNMENT RAILWAYS: ACCIDENTS(a), 1961-62

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
Persons killed ..	44	46	10	11	11	4	1	127
Persons injured ..	737	611	102	54	221	9	12	1,746

(a) Excludes accidents to railway employees.

14. Consumption of Coal, Oil and Petrol.—The following table shows the value of coal, oil and petrol consumed by the various government railways during 1961-62.

## GOVERNMENT RAILWAYS: VALUE OF COAL, OIL AND PETROL CONSUMED, 1961-62 (£'000)

Railway system	Coal		Oil				Petrol for rail cars
	Locomotives	Other purposes	Diesel(a)	Fuel(b)	Lubrication	Other purposes	
New South Wales ..	2,395	52	1,387	238	246	132	..
Victoria ..	527	19	694	332	122	133	..
Queensland ..	1,212	2	632	..	59	89	(c)
South Australia ..	301	22	373	189	(e)	(e)	(d)
Western Australia ..	673	7	288	28	137	84	6
Tasmania ..	20	1	91	..	11	13	..
Commonwealth ..	(f)	2	274	..	33	24	1
<b>Australia ..</b>	<b>5,128</b>	<b>105</b>	<b>3,739</b>	<b>787</b>	<b>(e)</b>	<b>(e)</b>	<b>7</b>

(a) Used in internal combustion engines of locomotives and rail cars. (b) Used in oil-fired furnaces of steam locomotives. (c) £386. (d) £100. (e) Not available. (f) £203.

15. **Staff Employed and Salaries and Wages Paid.**—The following table shows details of the average staff employed and the salaries and wages paid by the government railways of Australia during 1961-62.

**GOVERNMENT RAILWAYS: AVERAGE NUMBER OF EMPLOYEES AND SALARIES AND WAGES PAID, 1961-62**

Railway system	Operating staff			Construction staff			Total salaries and wages paid (£'000)	Average earnings per employee (£)
	Salaried	Wages	Total	Salaried	Wages	Total		
New South Wales ..	9,191	40,883	50,074	..	..	..	58,729	1,173
Victoria ..	(a) 5,437	a 24,509	a 29,946	(b)	(b)	(b)	34,413	1,149
Queensland(c) ..	4,371	22,691	27,062	21	552	573	30,273	1,095
South Australia ..	1,828	7,318	9,146	..	721	721	10,745	1,089
Western Australia ..	1,975	10,190	12,165	(d)	(d)	(d)	12,959	1,065
Tasmania ..	354	1,994	2,348	35	107	142	2,495	1,002
Commonwealth ..	434	2,427	2,861	..	..	..	3,334	1,165
<b>Australia ..</b>	<b>e 23,590</b>	<b>e 110,012</b>	<b>e 133,602</b>	<b>56</b>	<b>1,380</b>	<b>1,436</b>	<b>152,948</b>	<b>1,133</b>

(a) Includes construction staff and staff of the road motor services. (b) Included with operating staff. (c) Excludes Queensland portion of Uniform Gauge Railway. (d) Construction work is carried out by private contractors and the staff engaged is therefore not under the control of the Railway Commissioner. (e) Includes construction staff, Victoria.

**TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES**

1. **Systems in Operation.**—(i) *Tramway and Trolley-bus.* Since 1st April, 1947, all systems have been operated by government or municipal authorities. During the year 1961-62, tramway systems were in operation in the following cities—Melbourne, Bendigo, and Ballarat, Victoria; Brisbane, Queensland; and Adelaide, South Australia. Trolley-bus services operated in Brisbane, Queensland; Adelaide, South Australia; Perth, Western Australia; and Hobart and Launceston, Tasmania. All systems were electric.

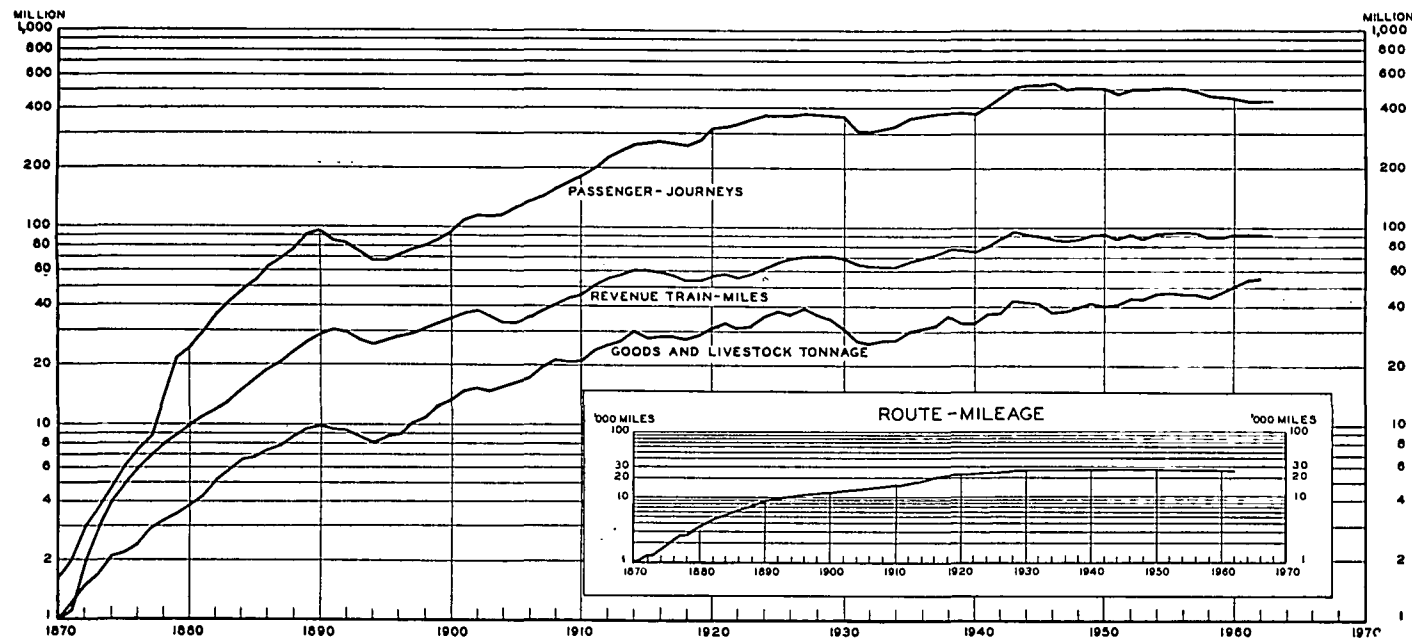
In many parts of Australia, private lines used for special purposes in connexion with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways, and the traffic on them has nothing in common with that of the street tramways for the conveyance of passengers, which are dealt with in the present section.

(ii) *Motor Omnibus.* Services are operated by government or municipal authorities and private operators. Statistics are collected for government and municipal omnibus services located in all State capital cities; Canberra, Australian Capital Territory; Newcastle, New South Wales; Maryborough and Rockhampton, Queensland; Fremantle and the Eastern Goldfields area, Western Australia; Launceston and Burnie, Tasmania; Darwin, Northern Territory; and for country road services operated by the Western Australian Government Railways. In Sydney, the government tramway system has been replaced by omnibus services, and in Perth, the Metropolitan (Perth) Passenger Transport Trust has acquired all but one of the formerly privately owned metropolitan services. In Hobart, the government trolley-bus and omnibus services have replaced the government tramway service.

Particulars of motor omnibus services under the control of private operators are recorded for the States of New South Wales, Victoria, Queensland, South Australia and Western Australia. In New South Wales, particulars of private services are compiled for the Sydney metropolitan and Newcastle transport districts and the city of Greater Wollongong. In Victoria, particulars relate to the Melbourne metropolitan area only, and in South Australia to services licensed by the Municipal Tramways Trust and the Transport Control Board. In Queensland, they relate to all cities with a population of 10,000 or more persons. In Western Australia, particulars of all private services throughout the State are included.

# GOVERNMENT RAILWAYS: AUSTRALIA, 1870 TO 1962

RATIO GRAPH  
ROUTE-MILEAGE AND TRAFFIC

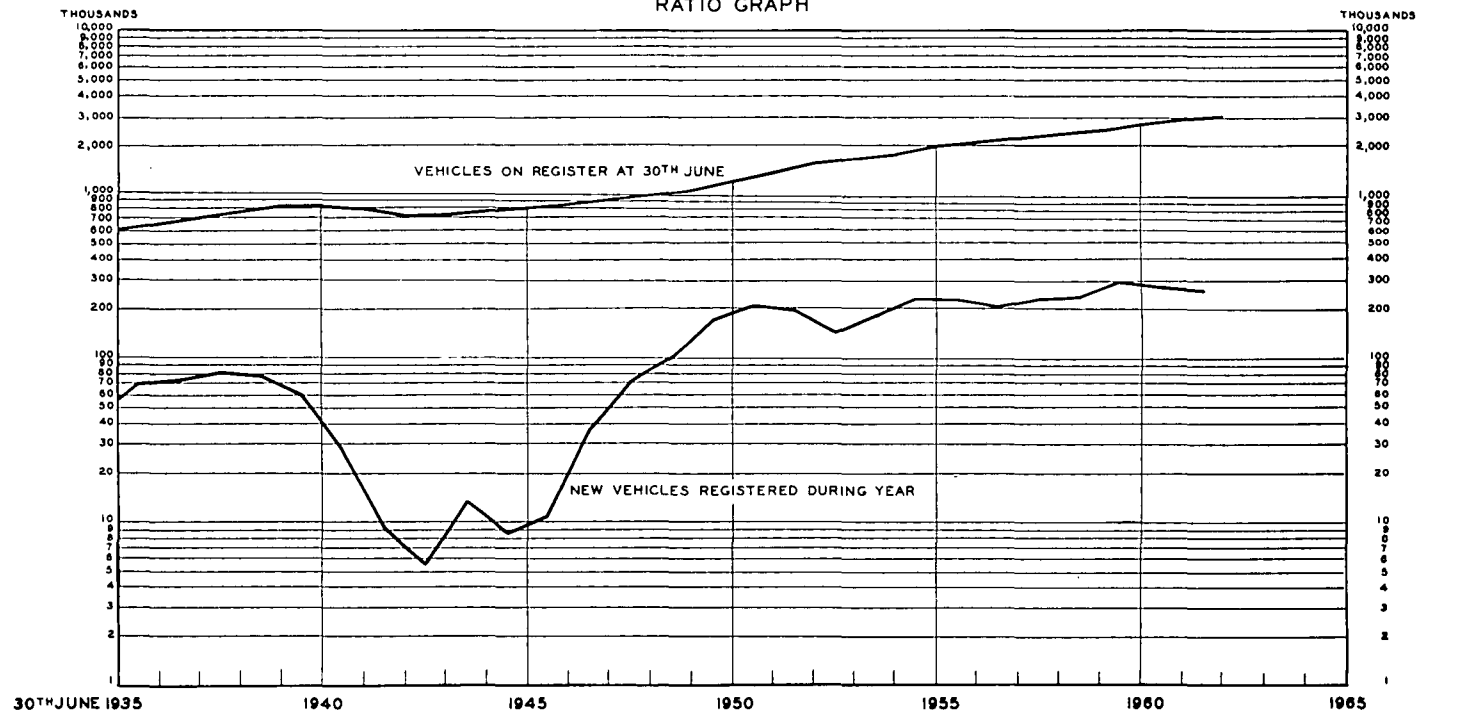


NOTE:- VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE. ACTUAL NUMBERS ARE INDICATED BY SCALE.

# MOTOR VEHICLE REGISTRATIONS: AUSTRALIA, 1935 to 1962

## (EXCLUDING MOTOR CYCLES)

RATIO GRAPH



NOTE:- VERTICAL SCALE IS LOGARITHMIC AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE. ACTUAL NUMBERS ARE INDICATED BY SCALE.

2. Government and Municipal Services.—(i) *Summary of Operations, States.* Because of the development in recent years of the various forms of public road transport under the control of single authorities, and the gradual replacement of tramway services by motor omnibus services, it is no longer possible to obtain separate statistics for all phases of the activities of each form of transport, particularly financial operations. In this section, therefore, statistics of public tramway, trolley-bus and motor omnibus services are combined in single tables with separate details shown for each form of transport where possible.

Since October, 1960, the tramway gauge has been 4 feet 8½ inches throughout.

The following table gives a summary of the operations of tramway, trolley-bus and omnibus systems controlled by government and municipal authorities, for 1961-62.

TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL, 1961-62

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Route-miles at 30th June—									
Tram .. .. miles	..	156	66	7	..	..	..	..	229
Trolley-bus .. ..	..	..	20	23	(a)	28	..	..	..
Omnibus .. ..	554	123	408	112	3,825	813	35	59	6,000
Vehicle miles—									
Tram .. .. '000	..	19,656	7,868	510	..	..	..	..	28,034
Trolley-bus .. ..	..	..	1,140	1,353	(a)	1,397	..	..	..
Omnibus .. ..	44,993	6,993	5,458	9,485	16,117	4,946	388	1,377	93,647
Rolling Stock at 30th June—									
Tram .. .. No.	..	762	366	30	..	76	..	..	1,158
Trolley-bus .. ..	..	..	36	56	72	229	..	..	240
Omnibus .. ..	1,755	238	278	329	552	..	11	58	3,450
Passenger-journeys—									
Tram .. .. '000	..	173,255	72,664	2,477	..	..	..	..	248,396
Trolley-bus .. ..	..	..	9,566	6,565	(a)	..	..	..	..
Omnibus .. ..	270,201	31,313	27,206	46,051	48,163	25,576	655	4,253	469,549
Gross revenue(c)—									
Tram, trolley-bus and omnibus .. £'000	12,543	8,759	3,894	2,715	2,445	1,178	35	188	31,757
Working expenses(d)—									
Tram, trolley-bus and omnibus .. £'000	14,534	8,667	3,911	2,606	2,758	1,429	53	248	34,206
Net revenue—									
Tram, trolley-bus and omnibus .. £'000	-1,991	92	-17	109	-313	-251	-18	-60	-2,449
Ratio of working expenses to gross revenue—									
Tram, trolley-bus and omnibus .. per cent.	115.88	98.95	100.42	95.99	112.79	121.36	149.03	131.70	107.71
Employees at 30th June—									
Tram, trolley-bus and omnibus .. No.	8,280	5,420	2,746	1,607	1,721	710	15	108	20,607
Accidents—									
Tram, trolley-bus and omnibus(e)—									
Persons killed .. No.	5	23	10	..	2	2	..	..	42
Persons injured ..	1,683	635	140	329	215	67	..	7	3,076

(a) Included with omnibus services. (b) Includes a small number of passenger-ferry miles.  
(c) Excludes government grants. (d) Includes provision of reserves for depreciation, etc., where possible.  
(e) Excludes accidents to employees.

NOTE.—Minus sign (-) denotes deficit.



(ii) *Summary of Operations, Australia.* The following table gives a summary of the operations of tramway, trolley-bus and omnibus systems controlled by government and municipal authorities, for the years 1957-58 to 1961-62.

**TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL, AUSTRALIA**

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Route-miles at 30th June—					
Tram .. .. miles	344	286	275	238	229
Trolley-bus .. .. "	98	105	92	92	} 6,000
Omnibus .. .. "	4,803	5,664	5,773	5,551	
Vehicle miles—					
Tram(a) .. .. '000	43,813	37,659	34,379	30,010	28,034
Trolley-bus .. .. "	5,803	5,277	5,444	4,558	} b 93,647
Omnibus .. .. "	64,878	78,881	81,755	85,924	
Rolling stock at 30th June—					
Tram .. .. No.	1,796	1,584	1,514	1,227	1,158
Trolley-bus .. .. "	305	279	246	246	240
Omnibus .. .. "	2,719	3,016	3,154	3,366	3,450
Passenger-journeys—					
Tram(a) .. .. '000	423,471	346,957	312,913	265,473	248,396
Trolley-bus .. .. "	28,607	25,720	25,403	19,461	} 469,549
Omnibus(c) .. .. "	350,652	404,676	420,360	440,822	
Gross revenue(d)—					
Tram, trolley-bus and omnibus £'000	29,668	31,132	31,817	31,800	31,757
Working expenses(e)—					
Tram, trolley-bus and omnibus £'000	31,701	32,338	33,629	34,382	34,206
Net revenue—					
Tram, trolley-bus and omnibus £'000	-2,033	-1,206	-1,812	-2,582	-2,449
Ratio of working expenses to gross revenue—					
Tram, trolley-bus and omnibus per cent.	106.85	103.87	105.70	108.12	107.71
Employees at 30th June—					
Tram, trolley-bus and omnibus No.	22,679	22,569	21,555	21,479	20,607
Accidents—					
Tram, trolley-bus and omnibus(f)—					
Persons killed .. No.	43	38	40	25	42
Persons injured .. "	3,148	3,092	3,147	2,756	3,076

(a) Includes particulars of New South Wales trolley-buses up to cessation of operation in August, 1959, and tramway services up to February, 1961. (b) Includes a small number of passenger-ferry miles for Western Australia. (c) Includes particulars for Tasmanian trams (to October, 1960) and trolley-buses. (d) Excludes government grants. (e) Includes provision of reserves for depreciation, etc., where possible. (f) Excludes accidents to employees.

NOTE.—Minus sign (—) denotes deficit.

3. *Private Services.—Summary of Operations.* The following table shows the operations of motor omnibus services under the control of private operators in New South Wales, Victoria, South Australia and Western Australia during each of the years 1957–58 to 1961–62, and in Queensland during the years 1959–60 to 1961–62.

## MOTOR OMNIBUS SERVICES: PRIVATE

Year	Number of omnibuses	Omnibus-miles	Passenger-journeys	Value of plant and equipment	Gross revenue	Persons employed
		('000)	('000)	(£'000)	(£'000)	

## NEW SOUTH WALES(a)

1957–58..	..	901	25,385	96,803	1,584	3,722	1,704
1958–59..	..	916	25,496	95,457	1,586	3,721	1,545
1959–60..	..	930	26,676	98,303	1,661	4,025	1,679
1960–61(b)	..	1,011	20,611	76,157	1,847	3,288	1,662
1961–62..	..	1,171	26,336	83,523	1,963	4,194	1,593

## VICTORIA(c)(d)

1957–58..	..	472	15,701	73,020	(e) 670	2,219	(f) 714
1958–59..	..	469	15,592	72,005	670	2,206	750
1959–60..	..	477	15,448	70,719	759	2,319	705
1960–61..	..	495	15,702	70,273	755	2,467	732
1961–62..	..	(g) 486	15,805	69,150	694	2,613	721

## QUEENSLAND(h)

1959–60..	..	362	7,605	25,344	713	1,165	539
1960–61..	..	378	8,298	25,806	741	1,238	578
1961–62..	..	394	8,714	26,301	806	1,281	582

## SOUTH AUSTRALIA(i)

1957–58..	..	113	6,096	12,713	(j) {	726	(i) {
1958–59..	..	116	6,042	12,107		732	
1959–60..	..	117	6,208	11,457		833	
1960–61..	..	(k) 281	5,963	11,171		849	
1961–62..	..	(d) 258	6,030	11,153		869	

## WESTERN AUSTRALIA(l)

1957–58..	..	383	11,644	29,881	1,030	1,577	800
1958–59(m)	..	146	6,028	15,846	260	804	287
1959–60..	..	137	4,142	11,183	243	585	272
1960–61r	..	142	4,049	10,394	353	586	273
1961–62(m)	..	53	3,098	7,268	142	383	82

(a) Metropolitan, Newcastle and Wollongong transport districts only. (b) Nine months ended March, 1961; subsequent figures relate to the years ended 31st March. (c) Metropolitan area only. (d) Partly estimated. (e) Vehicles only. (f) Drivers only. (g) At 20th September, 1962. (h) All cities with a population of 10,000 persons or more. (i) Services licensed by the Municipal Tramways Trust and the Transport Control Board. (j) Not available. (k) Includes 156 Transport Control Board licensed omnibuses previously excluded. (l) Includes services operated in metropolitan and rural areas. (m) Decrease due to Metropolitan (Perth) Passenger Transport Trust acquiring services which were previously privately owned. r—Revised figures.

## FERRY (PASSENGER) SERVICES

1. **General.**—Ferry passenger services are operated in the following States—New South Wales, at Sydney and Newcastle; Western Australia, on the Swan River at Perth; Tasmania, on the Derwent River at Hobart and on the Mersey River at Devonport. Control is exercised by both governmental authorities and private operators. In Victoria and Queensland the services operated are not extensive. There are no ferry passenger services in South Australia.

2. **Summary of Operations.**—The operations of ferry passenger services in New South Wales, Western Australia and Tasmania during the years 1957–58 to 1961–62 are summarized in the following table. Particulars of vehicular ferries are not included.

## FERRY (PASSENGER) SERVICES

Year	Number of vessels	Passenger accommodation	Passenger-journeys (‘000)	Gross revenue (£)	Persons employed
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## NEW SOUTH WALES—SYDNEY AND NEWCASTLE

1957–58	..	..	39	22,179	16,375	846,000	318
1958–59	..	..	37	19,300	15,906	800,196	308
1959–60	..	..	37	19,191	15,365	835,700	298
1960–61	..	..	40	19,211	15,093	872,000	316
1961–62	..	..	39	17,641	14,452	830,000	295

## WESTERN AUSTRALIA—PERTH

1957–58	..	..	4	785	442	13,520	11
1958–59	..	..	4	785	407	13,504	11
1959–60	..	..	4	785	362	12,219	7
1960–61	..	..	4	785	180	9,211	7
1961–62	..	..	4	800	168	9,889	8

## TASMANIA—HOBART AND DEVONPORT

1957–58r	..	..	4	1,482	461	12,811	15
1958–59r	..	..	4	1,482	416	12,701	15
1959–60r	..	..	4	1,452	431	12,061	13
1960–61r	..	..	4	1,482	436	10,434	12
1961–62	..	..	4	1,482	406	9,419	12

r—Revised figures.

## MOTOR VEHICLES

1. **General.**—The arrangements for the registration of motor vehicles and the licensing of drivers and riders are not uniform throughout Australia, since they are the function of a separate authority, or authorities, in each State and Territory. Particulars of registration, licences, fees payable, etc., in each State and Territory at 30th June, 1960, were given in Official Year Book, No. 47, pp. 553–6.

In all the capital cities and in most of the provincial centres, taxi-cabs and other vehicles ply for hire under licence granted by either the Commissioner of Police or the local government authority concerned, but particulars of their operations are not available.

In both urban and provincial centres, motor omnibus traffic has assumed considerable proportions during recent years, and there has been a considerable replacement of existing tramway and trolley-bus services by motor omnibus services. (See p. 602.)

2. Motor Vehicles on the Register, etc.—(i) *Registrations and Revenue.* The following table shows particulars of the registration of motor vehicles, licences issued and revenue received for 1961–62 and a summary for Australia for each of the years 1957–58 to 1961–62. In Victoria, registration is made on the basis of the purpose for which the vehicle is to be used; consequently, motor car registrations are overstated by the inclusion of commercial vehicles registered for private use.

A graph showing, for all motor vehicles other than motor cycles, the registrations in force at 30th June of each year from 1935 to 1962 will be found on page 604.

## MOTOR VEHICLES: REGISTRATIONS AND REVENUE

State or Territory, and year	Number of motor vehicles registered at 30th June(a)				Number of drivers' and riders' licences in force at 30th June	Gross revenue derived from—				
	Motor cars(b)	Commercial vehicles (c)	Motor cycles	Total		Vehicle registrations and motor tax (£'000)	Drivers' and riders' etc. licences (£'000)	Other sources (£'000)	Total (£'000)	
STATES AND TERRITORIES, 1961-62										
N.S.W. . .	702,069	355,899	21,772	1,079,740	271	1,419,666	12,097	1,478	5,399	18,974
Victoria	(d)730,079	d179,467	17,191	926,737	310	1,079,751	10,474	1,267	3,669	15,410
Queensland	273,741	146,326	15,190	435,257	283	(e)	5,889	319	2,309	8,517
S. Aust. . .	231,631	75,698	15,681	323,010	326	388,673	4,640	(f)	113	4,753
W. Aust. . .	151,013	74,748	12,052	237,813	315	275,127	2,883	313	119	3,315
Tasmania	73,836	26,999	2,398	103,233	289	117,944	1,276	118	156	1,550
Nor. Terr.	5,497	5,054	357	10,908	390	13,241	65	9	2	76
A.C.T. . .	16,861	4,173	359	21,393	326	31,372	(e)	(e)	(e)	183
Australia . .	d2,184,727	d868,364	85,000	3,138,091	293	g3325774 h	37,324 (i)	3,504 h	11,767	52,778

## SUMMARY, AUSTRALIA

	(d)	(d)		(g)					
1957–58 ..	1,675,638	735,171	115,883	2,526,692	257	2,703,328	30,699	2,368	5,467
1958–59 ..	1,782,852	766,281	110,552	2,659,685	264	2,833,040	31,642	2,721	8,373
1959–60 ..	1,924,197	807,254	102,490	2,833,941	276	2,984,852	34,044	3,275	10,203
1960–61 ..	2,064,871	843,650	93,382	3,001,903	286	3,197,510	(h)35,227 (h)	3,799	h10,871
1961–62 ..	2,184,727	868,364	85,000	3,138,091	293	3,325,774	(h)37,324 (i)	3,504	h11,767

(a) Excludes, at 30th June, 1962, trailers (265,470), road tractors, etc. (47,609), and dealers' plates (8,946). (b) Includes taxis, hire cars and station wagons. (c) Includes utilities, panel vans, trucks and omnibuses. (d) See reference to Victoria in text above. (e) Not available.

(f) Included in registration fees. (g) Excludes Queensland. (h) Excludes Australian Capital Territory. (i) Excludes South Australia and Australian Capital Territory.

NOTE.—All Commonwealth-owned vehicles are included except those belonging to the Defence Services.

(ii) *Relation to Population.* The table following shows the number of vehicles (excluding motor cycles) registered per 1,000 of population in each State and Territory at 30th June for each of the years 1958 to 1962.

## MOTOR VEHICLES (EXCLUDING MOTOR CYCLES) REGISTERED PER 1,000 OF POPULATION

Date	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
30th June 1958	..	224	264	243	269	251	241	360	286
.. 1959	..	234	272	253	267	259	248	370	296
.. 1960	..	246	289	260	276	274	264	351	309
.. 1961	..	255	298	267	305	286	272	379	311
.. 1962	..	266	304	272	311	299	283	380	320

3. **New Vehicles Registered.**—(i) *States and Territories, 1961-62.* The following table shows the number of new vehicles registered in each State and Territory during 1961-62. This series is not entirely comparable with the "On Register" series. A graph showing the number of new motor vehicles (excluding motor cycles) registered during each of the years 1935-36 to 1961-62 will be found on page 604.

#### NEW MOTOR VEHICLES REGISTERED, 1961-62(a)

Vehicles	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Motor cars(b) ..	85,647	59,592	25,171	18,536	16,857	6,931	572	2,620	215,926
Other motor vehicles(c) ..	18,633	12,389	7,802	4,710	5,824	1,775	523	465	52,121
Motor cycles ..	1,401	738	1,029	1,127	896	59	31	33	5,314
<b>Total ..</b>	<b>105,681</b>	<b>72,719</b>	<b>34,002</b>	<b>24,373</b>	<b>23,577</b>	<b>8,765</b>	<b>1,126</b>	<b>3,118</b>	<b>273,361</b>

(a) This series is not entirely comparable with the "On Register" series. (b) Includes taxis, hire cars and station wagons. (c) Includes utilities, panel vans, trucks, omnibuses and ambulances.

(ii) *Australia.* Particulars of the number of new vehicles registered in Australia during each of the years 1957-58 to 1961-62 are shown in the following table.

#### NEW MOTOR VEHICLES REGISTERED: AUSTRALIA(a)

Vehicles	1957-58	1958-59	1959-60	1960-61	1961-62
Motor cars, taxis and station wagons ..	166,159	176,314	224,055	223,142	215,926
Other motor vehicles(b) ..	61,771	66,336	69,080	59,169	52,121
Motor cycles ..	10,433	10,036	9,689	7,879	5,314
<b>Total ..</b>	<b>238,363</b>	<b>252,686</b>	<b>302,824</b>	<b>290,190</b>	<b>273,361</b>

(a) This series is not entirely comparable with the "On Register" series. (b) Includes utilities, panel vans, trucks, omnibuses and ambulances.

4. **World Motor Vehicle Statistics. 1962.**—At 1st January, 1962, there were 135,220,800 motor cars, trucks and omnibuses registered in various countries of the world. This was an increase of 5.6 per cent. on the figure for the previous year, 128,035,000. Of the 1962 registrations, 75,880,000 or 56.1 per cent. of the world total were in the United States of America, while Australian registrations amounted to 2.1 per cent. This information is largely derived from the *Automobile International*, May, 1961.

### ROADS AND BRIDGES

Information on the length of roads in Australia, the class of roads and the composition, together with particulars of the financial operations of the roads authorities in the several States, is included in Chapter XIX. Local Government, of this Year Book.

### ROAD TRAFFIC ACCIDENTS

#### § 1. Accidents Reported.

1. **General.**—Statistics of "Total Accidents Recorded" were collected to 31st December, 1957, on a comparable basis for all States except Tasmania, where, under legislation passed on 10th August, 1954, it became no longer obligatory to report accidents involving only damage to property. However, this series was suspended from 1st January, 1958, owing to the inconsistency between States in recording "damage only" accidents.

Details are not available in respect of road traffic accidents which occur in the Northern Territory.

2. **Accidents Involving Casualties.**—(i) *States, 1961-62.* The following table gives a summary of accidents involving casualties in each State and the Australian Capital Territory for the year 1961-62.

**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): ACCIDENTS  
RECORDED AND CASUALTIES, 1961-62**

State or Territory	Accidents involving casualties	Persons killed			Persons injured		
		Number	Per 100,000 of mean population	Per 10,000 motor vehicles registered	Number	Per 100,000 of mean population	Per 10,000 motor vehicles registered
New South Wales ..	15,300	887	22	8	19,886	504	189
Victoria ..	11,639	818	28	9	16,074	543	177
Queensland ..	5,915	341	22	8	8,137	533	190
South Australia ..	6,184	179	18	6	7,913	807	249
Western Australia ..	3,571	187	25	8	4,856	651	211
Tasmania ..	872	72	20	7	1,207	338	120
Aust. Cap. Terr. ..	302	7	11	4	451	722	225
<b>Total ..</b>	<b>43,783</b>	<b>2,491</b>	<b>24</b>	<b>8</b>	<b>58,524</b>	<b>553</b>	<b>191</b>

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death, or injury to an extent requiring surgical or medical treatment.

(ii) *Riders, Drivers, Pedestrians, etc., Killed or Injured.* The following table shows the number of persons killed and the number injured during 1961-62 in each State and the Australian Capital Territory, classified into drivers, riders, pedestrians, etc. Responsibility for cause of accident is not indicated by this classification.

**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): DRIVERS, RIDERS  
PEDESTRIANS, ETC., KILLED OR INJURED, 1961-62**

Drivers, riders, pedestrians, etc.	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Total
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**PERSONS KILLED**

Drivers of motor vehicles..	257	283	109	79	66	17	2	813
Motor cyclists ..	43	16	32	9	17	1	..	118
Pedal cyclists ..	32	38	24	11	8	5	..	118
Passengers (all types)(b) ..	254	237	88	43	60	23	2	707
Pedestrians ..	300	240	87	36	36	26	2	727
Other classes(c) ..	1	4	1	1	..	..	1	8
<b>Total ..</b>	<b>887</b>	<b>818</b>	<b>341</b>	<b>179</b>	<b>187</b>	<b>72</b>	<b>7</b>	<b>2,491</b>

**PERSONS INJURED**

Drivers of motor vehicles..	6,817	5,416	2,729	2,474	1,458	424	180	19,498
Motor cyclists ..	1,023	569	786	1,073	642	63	23	4,179
Pedal cyclists ..	966	1,111	548	890	360	76	33	3,984
Passengers (all types)(b) ..	7,613	6,494	3,239	2,657	1,868	460	178	22,509
Pedestrians ..	3,446	2,411	825	813	524	184	36	8,239
Other classes(c) ..	21	73	10	6	4	..	1	115
<b>Total ..</b>	<b>19,886</b>	<b>16,074</b>	<b>8,157</b>	<b>7,913</b>	<b>4,856</b>	<b>1,207</b>	<b>451</b>	<b>58,524</b>

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death, or injury to an extent requiring surgical or medical treatment.

(b) Includes pillion riders.

(c) Includes tram drivers, riders of horses and drivers of animal-drawn vehicles.

(iii) *Ages of Person Killed or Injured.* The following table shows the age groups of persons killed or injured in traffic accidents in each State and the Australian Capital Territory during 1961-62.

### ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): AGES OF PERSONS KILLED OR INJURED, 1961-62

Age group (years)	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Total
PERSONS KILLED								
Under 5 ..	26	30	11	6	6	2	..	81
5 and under 7 ..	6	6	4	3	4	1	..	24
7 " " 17 ..	72	59	32	12	13	9	2	199
17 " " 21 ..	94	92	52	19	32	11	2	302
21 " " 30 ..	137	162	52	30	26	11	2	420
30 " " 40 ..	114	119	43	22	25	4	..	327
40 " " 50 ..	107	77	33	15	20	7	1	260
50 " " 60 ..	100	87	51	28	24	8	..	298
60 and over ..	227	174	63	34	36	19	..	553
Not stated ..	4	12	..	10	1	..	..	27
Total ..	887	818	341	179	187	72	7	2,491
PERSONS INJURED								
Under 5 ..	558	596	228	233	196	36	15	1,862
5 and under 7 ..	400	402	190	173	115	24	10	1,314
7 " " 17 ..	2,417	2,205	1,024	1,192	693	176	88	7,795
17 " " 21 ..	3,555	2,596	1,672	1,476	1,033	246	63	10,641
21 " " 30 ..	4,178	3,312	1,605	1,382	925	262	98	11,762
30 " " 40 ..	2,802	2,370	1,037	991	567	150	74	7,991
40 " " 50 ..	2,365	1,763	874	764	411	125	49	6,351
50 " " 60 ..	1,587	1,295	646	518	348	72	36	4,502
60 and over ..	1,682	1,321	679	493	311	88	16	4,590
Not stated ..	342	214	182	691	257	28	2	1,716
Total ..	19,886	16,074	8,137	7,913	4,856	1,207	451	58,524

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death, or injury to an extent requiring surgical or medical treatment.

(iv) *Accidents Recorded and Casualties, classified according to Type of Vehicle, Road User, etc., Involved.* The following table shows, for the year 1961-62, the number of accidents involving casualties in which each of several classes of vehicles, road users, etc., were involved. The persons killed and injured are similarly classified. As in the table in sub-paragraph (ii) above, responsibility for cause of accident is not indicated by this classification.

### ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a), CLASSIFIED ACCORDING TO TYPE OF VEHICLE, ROAD USER, ETC., INVOLVED: AUSTRALIA, 1961-62

Particulars	Motor vehicle	Motor cycle	Pedal cycle	Tram	Animal and animal-drawn vehicle	Pedestrian	Fixed object	Other vehicle
Accidents involving casualties ..	41,391	4,821	4,151	246	391	8,356	3,336	201
Persons killed ..	2,395	145	120	24	11	724	214	48
Persons injured ..	55,852	5,459	4,203	294	473	8,192	4,519	244

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death, or injury to an extent requiring surgical or medical treatment.

NOTE.—As accidents and casualties classified according to one type of road user, etc., may also be classified according to another, these totals cannot be added across to obtain grand totals.

The 41,391 accidents involving casualties in which motor vehicles were involved comprised 14,535 collisions with other motor vehicles, 3,269 with motor cycles, 3,530 with pedal cycles, 81 with trams, 240 with animals and animal drawn vehicles, 7,832 with pedestrians, 3,023 with fixed objects, 177 with vehicles other than those mentioned, 8,208 instances of overturning or leaving the roadway, and 496 accidents to passengers only.

3. *Road Traffic Accidents Involving Casualties, and Persons Killed or Injured.*—The following table shows the number of road traffic accidents involving casualties and persons killed or injured in road traffic accidents in each State and the Australian Capital Territory during each of the years 1957-58 to 1961-62.

## ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a) AND PERSONS KILLED OR INJURED

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Total	
								Num-ber	Per 10,000 motor vehicles registered
ACCIDENTS INVOLVING CASUALTIES									
1957-58	14,646	11,233	6,565	4,372	3,338	779	237	41,170	168
1958-59	15,216	12,462	5,603	3,984	3,450	791	260	41,766	162
1959-60	16,871	12,267	5,720	5,340	3,656	743	322	44,919	164
1960-61	16,599	12,140	5,424	6,117	3,602	844	326	45,052	155
1961-62	15,300	11,639	5,915	6,184	3,571	872	302	43,783	143
PERSONS KILLED									
1957-58	795	571	342	200	164	70	5	2,147	9
1958-59	833	661	333	185	178	68	6	2,264	9
1959-60	939	698	359	203	180	79	10	2,468	9
1960-61	934	773	353	203	197	75	7	2,542	9
1961-62	887	818	341	179	187	72	7	2,491	8
PERSONS INJURED									
1957-58	19,378	15,015	8,739	5,492	4,249	1,000	320	54,193	221
1958-59	19,854	16,784	7,700	5,183	4,506	990	342	55,359	214
1959-60	22,330	16,595	8,054	6,856	4,788	1,004	477	60,104	219
1960-61	22,244	16,757	7,607	7,665	4,806	1,157	513	60,749	209
1961-62	19,886	16,074	8,137	7,913	4,856	1,207	451	58,524	191

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death, or injury to an extent requiring surgical or medical treatment.

## § 2. Road Safety Organizations

1. Australian Road Safety Council.—(i) *Origin, Objectives and Organization.* The Australian Road Safety Council was formed in 1947 by the Australian Transport Advisory Council, which comprises Commonwealth and State transport ministers and Commonwealth ministers with associated interests, to conduct a nation-wide programme of public education. It was re-constituted in February, 1961, by the Australian Transport Advisory Council, in order to provide a smaller, more effective, organization.

The objectives of the reconstituted Council are:—

- to conduct a continuous programme of public education, aimed at improving the knowledge, skills, attitudes and practices of all classes of road users;
- to encourage a better understanding and observance of State and Commonwealth traffic laws by road users;
- to stimulate greater public interest, support and active participation in road accident prevention;
- to co-ordinate, in a balanced programme, the Commonwealth and State public education campaigns, and to integrate with these campaigns the support accorded by non-governmental bodies and the general public;
- to collect, collate, publish and distribute educational and informative data regarding road accidents; and
- to advise on specific road safety matters referred to it by the Australian Transport Advisory Council.

The Australian Road Safety Council comprises 16 members, representing the Commonwealth and State Governments and the major categories of organized road users. It meets approximately three times each year and has established a number of temporary sub-committees to investigate and report upon particular aspects of its activities.



The Department of Shipping and Transport provides the central executive for the Council. Each section represented on the Australian Road Safety Council—Commonwealth, State and community/commercial—exercises full control over its own activities. One of the Council's principal functions is to co-ordinate the Commonwealth and State public education campaigns and to integrate with these campaigns the support accorded by commerce, industry, and community service organizations.

A sum of £150,000 is provided annually by the Commonwealth Department of Shipping and Transport for the promotion of road safety practices; £50,000 is distributed to the State Governments for public education in road safety, and the remaining £100,000 is used for the national public education campaign. The £50,000 grant to the States is allocated in the following proportions:—New South Wales, £12,500; Victoria, £10,000; Queensland, £9,250; South Australia, £6,250; Western Australia, £8,250; Tasmania, £3,750.

(ii) *Mode of Operation.* The media used by the Australian Road Safety Council in its national campaigns include metropolitan daily press and metropolitan radio and television, platform and pulpit, plus a wide variety of posters, pamphlets, booklets, publications and films. The official publication of the Council is the *Australian Road Safety Council Report* which is published monthly. Close liaison is maintained with State and Commonwealth educationists in the preparation and distribution of road safety instructional material for schools.

The Council, through its Central Executive in the Department of Shipping and Transport, works in close collaboration with two companion Committees, established by the Australian Transport Advisory Council. These are the Australian Road Traffic Code Committee, which prepares model regulations with the object of attaining national uniformity of traffic laws; and the Australian Motor Vehicle Standards Committee, which devises national standards for the construction, equipment, and operational efficiency of all road vehicles.

Because of the great increases in population and vehicle numbers, the exposure to risk of road users is considerably greater today than ever before. This is the basic problem confronting the Australian Road Safety Council, and in its efforts to deal with it, the Council has recognized the consideration that, notwithstanding advances in road and vehicle design and traffic laws, road safety still remains essentially a problem of human behaviour.

The primary aim of road accident prevention, as envisaged by the Council, is thus to create a state of mind in which all classes of road users realize the imminence and consequence of road accidents, and are willing to accept the restraints necessary to prevent them. It is the Council's belief that, for the most part, this can best, and often only, be done effectively through education in the broad and practical sense, by improving knowledge, skill, attitudes and habits of all classes of road users, and by creating a public conscience about road accidents. The current National Public Education campaign is based on the theme "Road Safety Starts With You".

2. *National Safety Council of Australia.*—(i) *Origin, Objectives and Organization.* The National Safety Council of Australia was founded in Victoria in 1927, when it was registered as a company limited by guarantee and subsequently registered as a foreign company in New South Wales, Queensland, Tasmania and Western Australia. In 1959 the opportunity was taken to adopt new articles of association, which placed the National Safety Council of Australia on a more truly federal basis, reflecting the expanded character of the Council in the 35 years since its formation.

The objects of the Council, summarized, are:—

- (a) to devise and encourage the adoption of safety measures of all kinds;
- (b) to promote discussion of all matters relating to safety measures;
- (c) to conduct an educational campaign among the people of Australia to stimulate the adoption and observance of safety measures; and
- (d) to consider, initiate and support improvements in the laws of the Commonwealth of Australia, the States and local governing bodies calculated to prevent accidents.

The Council is a membership organization whose members include transport, education and other authorities as well as numerous industrial concerns. Membership is open to any person or organization wishing to further the objects and purposes of the Council. The Council is now registered in Canberra, with State Divisions established in Queensland, New South Wales, Victoria, Tasmania and South Australia, and the National Safety Council

of Western Australia acts as its agent in that State. It is managed by a Federal Council, whose members are appointed by the State Divisions. The Federal Council is responsible for those objectives which are of a national character, and each State Division controls its own affairs which are of State or local character.

The Council is a non-profit making organization and, apart from fees which may be charged to members and others for services provided, its work is financed by subscriptions, grants and donations, which in general are received at State level by the various State Divisions.

(ii) *Activities.* The Council's interests cover the development of industrial, rural and home safety, and, as in the case of its Victorian Division, road safety, where it undertakes road safety campaigns, lectures, film screenings to schools and organizations, and the distribution of posters and literature. A "Safe Driving" campaign for individual motor drivers and a "Freedom from Accidents" campaign for employee drivers are conducted, and those completing a year free from any accident for which they were responsible are given a certificate or award in recognition.

In addition to the industrial safety service of posters, slips for pay envelopes and the bi-monthly journal *Safety News* available to industry by subscription, the Council's Industrial Safety Division also provides advice on the setting up of safety programmes, information on safety problems, safety surveys of plant and works, safety instruction for foremen, technical library facilities, and safety service to small factories.

## CIVIL AVIATION

1. *Historical.*—A short review of the progress of civil aviation in Australia up to the date of foundation of a Civil Aviation Administration was published in Official Year Book No. 16, pages 334–5, and a brief account of the foundation and objects of this Administration was published in Official Year Book No. 19, page 299. Official Year Book No. 38 and earlier issues contain information on the control of civil aviation by the Board (1936) and later (1939) by the Department of that name. The Acts defining the broad principles of operation of the administration of civil aviation and the Regulations amplifying them, and the principal functions of the administration are also described.

The Department has 14 Divisions as follows:—Air Transport; International Relations; Aviation Medicine; Flying Operations; Airworthiness; Airways Operations; Communications and Air Traffic Control Engineering; Airport Engineering; Aviation Buildings and Property; Finance and Stores; Air Safety Investigation; Navigational Aids, Electrical and Mechanical Engineering; Organization, Methods and Establishments; and Personnel and Administration.

2. *International Activity.*—(i) *International Organizations.* A full report of the formation of the International Civil Aviation Organization, the Commonwealth Air Transport Council and the South Pacific Air Transport Council appeared in Official Year Book No. 37, and particulars of subsequent activity in the international field were included in issue No. 38. The International Civil Aviation Organization had a membership of 98 nations in November, 1962. Australia has continued her representation on the Council, a position which she held since I.C.A.O. was established in 1947. Further details will be found in Official Year Book No. 40 and earlier issues.

(ii) *International Agreements.* A list of the agreements between Australia and other countries for the use by Australia of certain overseas routes and reciprocal routes granted in return in force at 30th June, 1962, was given on pages 555–6 of Official Year Book No. 48.

The countries concerned were:—Canada, United States of America, Pakistan, India, Ceylon, Netherlands, United Arab Republic, Lebanon, South Africa, Japan, Germany, Ireland, United Kingdom, Malaya and Thailand.

(iii) *International Air Services.* Qantas Empire Airways Ltd. has an operational fleet of 11 Boeing 707 jet aircraft, 4 Lockheed Electras and 8 Lockheed Super Constellations. The Boeings operate a round the world service through the United States of America and the United Kingdom and to Hong Kong, Japan and Noumea. The Electras are used on services to New Zealand and Fiji, and the Super Constellations on the South Africa service and on cargo services. Qantas was operating aircraft over 67,885 route miles on international services in October, 1962. A summary of the operations of overseas services wholly or partly Australian-owned appears on page 619.

Three Lockheed Electra aircraft operated by Tasman Empire Airways Ltd. link Sydney with Auckland, Christchurch and Wellington; Melbourne with Auckland and Christchurch; and Brisbane with Auckland.

A total of eleven international airlines operate services into and out of Australia, mainly to and from Sydney.

3. **Australian National Airlines Commission.**—The *Commonwealth Australian National Airlines Act* 1945 constituted the Australian National Airlines Commission for the purpose of establishing, maintaining and operating airline services for the transport of passengers and goods between Australian States and/or Territories and within Australian Territories. The Commission may, with the approval of the Minister, undertake services between Australia and places outside Australia, and, in certain circumstances, may engage in intra-State operations.

The operating organization set up to give effect to the Act is Trans-Australia Airlines.

4. **Regular Air Services within Australia.**—Domestic airline services throughout Australia and the Australian sector of Papua-New Guinea are provided by three distinct groups of airlines, operating over a route network of some 93,000 miles. The three groups are as follows.

*Trans-Australia Airlines*—operated by the Australian National Airlines Commission on behalf of the Commonwealth Government. T.A.A. operates on the main interstate routes throughout Australia and on territorial air services, as well as intrastate services in Queensland and Tasmania, and internal services in the Australian sector of Papua-New Guinea.

*Ansett Transport Industries airline group*—a private enterprise organization. This group comprises Ansett-A.N.A., also operating on the main interstate and territorial air routes, and five subsidiary airlines which operate basically intrastate services in Queensland, New South Wales, South Australia and the Australian sector of Papua-New Guinea.

*Small private enterprise airlines*—This group comprises four independent feeder type airlines operating basically intrastate services in New South Wales, Western Australia, Northern Territory and internally in Papua-New Guinea.

Competition between the two major domestic airlines, T.A.A. and Ansett-A.N.A. is controlled by Commonwealth legislation and Airline Agreements. These controls are designed to prevent uneconomic competition between the two companies. The two principal Acts which establish the legislative basis of this controlled competition are the *Airlines Agreement Act* 1952–1961 and the *Airlines Equipment Act* 1958. The *Airlines Equipment Act* establishes the machinery for the achievement and maintenance of comparable aircraft fleets between T.A.A. and Ansett-A.N.A., and is designed to prevent the provision of excess aircraft capacity. The *Airlines Agreement Act* establishes the basis of the control of the two airline competitive system and extends this machinery until 1977, and also establishes certain requirements covering the introduction of jet aircraft to Australian domestic services after 1st July, 1964. Under the terms of this Act, on 19th November, 1962, T.A.A. and Ansett-A.N.A. applied for, and received, government approval for each to buy two Boeing 727 jet airliners for introduction on Australian domestic services in late 1964 or early 1965.

A summary of the operations of regular air services within Australia appears on page 619.

5. **Air Ambulance Services.**—A brief statement on the foundation and objects of the Air Ambulance Services will be found in Official Year Book No. 32, pages 145 and 146.

During the year 1961–62, the Air Ambulance and Royal Flying Doctor Services continued to provide medical aid for the outback regions of Australia. The Royal Flying Doctor Service of Australia, operating from Broken Hill, New South Wales, Cloncurry, Queensland, and Alice Springs, Northern Territory (operated in conjunction with the Department of Health) covers a wide area of inland Australia. The Bush Church Aid Society for Australia and Tasmania, supported by funds from the Church of England, operates from Ceduna in South Australia. The Federal Methodist Inland Mission operates services from Meekatharra, Western Australia, and the Queensland Ambulance Transport Brigade operates a service from Cairns in Queensland. Recently a Flying Surgeon Service came into operation in Queensland.

For further information see Chapter XVII. Public Health.

6. **Training of Air Pilots.**—Since 1926, the Commonwealth has subsidized flying training in Australia largely through the Aero Club movement. In 1961 the Government altered the basis of financial assistance to flying training organizations. The new system provides for the payment of £637,000 in subsidies to Australian flying training organizations, including

the Aero Clubs, flying schools and the Gliding Federation of Australia, spread over a four-year period from 1961 to 1965. A feature of the new subsidy arrangements was the establishment of the Australian Flying Scholarship scheme which is designed to train career pilots for the Australian commercial aviation industry. The scholarships provide financial assistance in much the same way as Commonwealth scholarships provide for people undertaking other professions. Of the 148 flying scholarships awarded for 1962-63, the first year in which the scheme operated, 99 were scholarships to take the student through to the commercial licence standard, and 49 were to commercial licence plus instructor rating.

During the year 1961-62, pupils of the Australian flying training organizations (aero clubs and commercial flying schools) received 481 private licences, 140 commercial licences, and 45 instructor licences. Subsidized hours flown by aero clubs and flying schools totalled 97,929 hours and their subsidy earnings totalled £172,732. A limit placed on the subsidy restricted the total payment to £144,000. During the year, 22 clubs were also assisted with the purchase of 38 aircraft and 3 aircraft radios. The value of this assistance under the Aircraft Replacement Fund was £30,000. The permanent secretariats of the Royal Federation of Aero Clubs and the Commercial Flying Schools also received £7,000 during 1961-62 as additional financial assistance.

Assistance given to the Australian gliding clubs was increased to £6,000 in 1961-62. Of this, £1,500 was allocated to the National Gliding School, £780 for the development and design of gliders, and £720 for secretarial expenses, and £3,000 was distributed to clubs on the basis of membership and F.A.I. certificates. Members of the gliding clubs affiliated with the Gliding Federation of Australia increased from 1,037 to 1,117 during 1961-62, and F.A.I. certificates issued showed an increase of 45 per cent. over those issued the previous year.

The Federation Aeronautique Internationale, whose headquarters are in Switzerland, sets certain standards of efficiency which the glider pilot has to attain before he qualifies for a F.A.I. certificate (e.g., certificates are obtainable for height, distance and time aloft). The administrative authority in Australia for F.A.I. is the Royal Aero Club of Australia.

The total of all subsidy payments and financial assistance to flying training organizations and the gliding movement during 1961-62 was £187,000.

**7. Airways Engineering.**—The field of airways engineering includes the provision of radio navigation facilities, radiocommunication systems, and airport lighting systems.

Approvals were given during 1961-62 for extensions and improvement of Australia's airways navigation and communications system. Long-range air traffic control radar units are being installed at Sydney and Adelaide at a cost of £770,000. Both units are expected to be in operation by mid-1963, and similar units are planned for Melbourne, Brisbane and Perth as part of a radar programme costing £2.5 million. This coincides with the introduction of airborne radar which is a mandatory requirement for all Australian airliners from June, 1963. These two steps will enable radar surveillance of Australia's controlled air space by pilots and controllers to be considerably extended. Approval was also given during the year for the second stage of the Department of Civil Aviation's navigational aids plan. This involves the installation, over the next four years, of 16 visual omni radio ranges for primary directional guidance, and four international standard distance measuring equipment units at Sydney, Melbourne, Brisbane and Perth. In the communications field, work is proceeding steadily to improve further the high quality direct speech facilities between ground controllers and aircraft operating in controlled air space, and improve generally the communications system throughout the entire Australian aviation area.

One of the most significant additions to the communication system during 1961-62 was the commissioning of the Penrith international receiving station, which, together with the international transmitting station at Llandillo, near Sydney, provides air to ground and point to point communications on the international frequency bands for places as far away as Honolulu, Manila and Singapore.

**8. Airports.**—During 1961-62, development, valued at £1.7 million, was carried out at Commonwealth aerodromes in Australia and its Territories, bringing the total value of runways, taxiways and buildings, etc., at these aerodromes to approximately £50 million. The number of aerodromes is now 620, of which 147 are owned and operated by the Commonwealth. The major airport development project was the extension and development of Perth Airport to enable it to take international jets, and the construction of a new international domestic passenger terminal. This project, costing approximately £1.2 million, was completed in October, 1962.

During November, 1962, the Commonwealth Government gave approval for a five-year £30 million airport development programme which includes the construction of a new international and domestic airport at Melbourne, a new international terminal building and runway extensions at Sydney, development and the erection of a new terminal at Launceston, and general airport development works throughout Australia.

Significant developments in the provision of airways facilities at aerodromes in 1961-62 included the provision of a very high frequency omni range at Darwin for international airliners and an instrument landing system (I.L.S.) at Perth. The Perth I.L.S. installation brings the number of I.L.S. units in Australia to twelve. A further eight country aerodromes were equipped with night landing facilities, bringing the number suitably equipped for night operations to sixty-six.

**9. Meteorological Services.**—The Department of Civil Aviation is the greatest user of meteorological services in the Australian Commonwealth and its territories, and therefore the requirements for civil aviation purposes have played a big part in determining the form of meteorological organization that exists at the present time. The Department and the Commonwealth Bureau of Meteorology have completed working arrangements designed to meet the very precise requirements of modern civil aviation in Australia, which specify the standards of service, times and places of operation and facilities required for the provision of meteorological services for civil aviation.

**10. Search and Rescue.**—The Department of Civil Aviation has assumed responsibility for co-ordination of search and rescue activity throughout all Australian flight information regions, and also arranges for the availability of search and rescue facilities. Particulars of systems and methods of operation were published in Official Year Book No. 48, page 558.

**11. Statistical Summaries.**—(i) *Registrations, Licences, etc.* The following table provides a summary of the civil aviation registrations and licences in force in Australia at 30th June in each of the years 1958 to 1962.

**CIVIL AVIATION: REGISTRATIONS, LICENCES, ETC., AUSTRALIA(a)**

Particulars	30th June—				
	1958	1959	1960	1961	1962
Registered aircraft owners ..	570	642	745	850	938
Registered aircraft ..	1,180	1,246	1,360	1,502	(b) 1,600
Pilots' licences—					
Private ..	2,628	2,801	3,001	3,206	3,627
Private helicopter ..	..	..	..	2	2
Commercial ..	845	910	948	973	1,090
Senior commercial ..	100	130	132	147	154
Helicopter (commercial) ..	18	17	30	34	33
Student ..	3,489	3,461	3,696	4,151	4,433
Student helicopter ..	4	4	14	10	12
1st class airline transport ..	656	652	618	659	690
2nd class airline transport ..	389	389	418	471	432
Flight navigators' licences ..	176	177	168	142	141
1st class flight radio-telegraphy operators' licences ..	63	56	55	43	37
Flight radio-telephone operators' licences ..	1,823	2,203	2,651	3,679	5,370
Flight engineers' licences ..	176	189	193	200	175
Aircraft maintenance engineers' licences ..	2,016	2,266	2,382	2,492	2,485
Aerodromes, Australia—					
Government(c) ..	168	168	149	132	124
Licensed(d) ..	311	304	323	351	359
Flying boat bases(e) ..	13	13	13	13	13

(a) Except for aerodromes and flying-boat bases, includes the Territory of Papua and New Guinea.  
 (b) In addition, there were 125 gliders on the register. (c) Under the control and management of the Department of Civil Aviation. (d) Aerodromes under the control and management of a municipality, shire, station owner, private individual, etc. Includes emergency aerodromes. (e) Includes alighting areas.

(ii) *Types of Aircraft and Gliders on the Australian Register.* The various types of aircraft and gliders on the Australian register at 31st December, 1961, were shown in Official Year Book No. 48, p. 559.

(iii) *Operations of Regular Internal Services.* The next table summarizes the flying activities of regular internal services operating within Australia during each of the years 1957-58 to 1961-62.

**CIVIL AVIATION: OPERATIONS OF REGULAR INTERNAL SERVICES,  
AUSTRALIA(a)**

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Hours flown .. .. .	237,981	229,396	225,050	219,918	207,210
Miles .. .. . '000	40,533	40,287	43,199	42,301	41,176
Paying passengers .. .. .	2,122,794	2,235,070	2,660,412	2,639,080	2,666,160
Paying passenger-miles .. .. . '000	898,542	944,379	1,132,517	1,109,552	1,119,430
Freight—					
Tons(b) .. .. .	70,003	62,755	65,402	62,971	57,207
Ton-miles(b) .. .. . '000	32,987	28,841	29,240	28,220	26,076
Mail—					
Tons(b) .. .. .	2,642	2,727	4,825	5,956	6,311
Ton-miles(b) .. .. . '000	1,446	1,472	2,567	3,064	3,198

(a) Includes only services operating within the Australian mainland and Tasmania. of short tons (2,000 lb.).

(b) In terms

(iv) *Operations of Oversea Services wholly or partly Australian-owned.* The following table furnishes a summary of overseas services wholly or partly owned by Australian interests during the years 1957-58 to 1961-62. This table incorporates aggregate particulars of all traffic originating on overseas services of Qantas Empire Airways Limited and Tasman Empire Airways Limited, which, in the case of Qantas, includes considerable traffic which does not enter Australia. The transfer of the Australian Government's shares in Tasman Empire Airlines to the New Zealand Government on 25th July, 1961, made TEAL a wholly New Zealand-owned airline, and statistics of its operations are therefore not included in Australian statistics after 1960-61. An air services agreement was signed whereby air traffic rights into and through the two countries were exchanged at the same time, and on 1st October, 1961, both airlines commenced joint scheduling arrangements for trans-Tasman services. The table also includes traffic between Australia and Papua, New Guinea and Norfolk Island.

**CIVIL AVIATION: OPERATIONS OF OVERSEA SERVICES(a)**

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Route miles (unduplicated) at 30th June ..	71,729	74,704	76,125	72,290	69,712
Hours flown .. .. .	63,917	68,811	54,668	57,385	51,066
Miles .. .. . '000	15,267	16,486	16,992	20,068	19,240
Paying passengers .. .. .	164,634	176,120	232,714	291,258	247,517
Paying passenger-miles .. .. . '000	501,388	534,728	720,099	847,713	836,570
Freight—					
Tons(b) .. .. .	3,205	3,431	5,150	6,575	6,432
Ton-miles(b) .. .. . '000	12,051	15,381	24,625	30,134	30,429
Mail—					
Tons(b) .. .. .	1,749	1,647	2,015	2,335	2,015
Ton-miles(b) .. .. . '000	9,789	8,834	10,351	11,269	11,622

(a) Airlines wholly or partly owned by Australian interests.

(b) In terms of short tons (2,000 lb.).

(v) *Accidents and Casualties.* The number of accidents involving aircraft on the Australian register, in which persons were killed or injured, is shown in the following table for the years 1957-58 to 1961-62.

### CIVIL AVIATION: AUSTRALIAN AIRCRAFT(a), ACCIDENTS INVOLVING CASUALTIES

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Number .. .. .	35	39	43	40	46
Persons killed .. .. .	28	21	44	28	52
Persons injured .. .. .	31	30	42	38	38

(a) Aircraft on Australian register and gliders irrespective of location of accident.

12. **Territory of Papua and New Guinea.**—For brief particulars of civil aviation in Papua and New Guinea see Chapter V. The Territories of Australia, pages 150 and 156.

### POSTS; TELEGRAPHS; TELEPHONES; OVERSEA TELECOMMUNICATION SERVICES

NOTE.—In this division, particulars for the Australian Capital Territory are included with those for New South Wales and the South Australian figures include particulars for the Northern Territory, unless otherwise indicated.

#### § 1. General

1. **The Postmaster-General's Department.**—Under the provisions of the *Post and Telegraph Act* 1901, the Postmaster-General's Department is responsible for the control and operation of postal, telegraphic and telephonic services throughout Australia. The Postmaster-General's Department is also responsible for the provision and operation of the transmitters and technical facilities required for broadcasting and television services by the Australian Broadcasting Commission (see pp. 630-6), and co-operates with the Overseas Telecommunications Commission (see pp. 627-8) in providing facilities for communication with overseas countries. Subsidiary to its major activities, the Postmaster-General's Department performs a number of important functions for other Commonwealth and State departments, including the payment of pensions, child endowment, and military allotments, the provision of banking facilities on behalf of the Commonwealth Savings Bank, the sale of tax and duty stamps, and the collection of land tax.

2. **Postal Facilities.**—(i) *Relation to Area and Population.* The following table shows the number of post offices, the area in square miles and the number of inhabitants to each post office (including non-official offices), and the number of inhabitants to each 100 square miles in each State and in Australia at 30th June, 1962.

#### POSTAL FACILITIES: RELATION TO AREA AND POPULATION AT 30th JUNE, 1962

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Number of post offices—							
Official and semi-official .. .. .	(a) 517	324	226	169	148	53	1,437
Non-official .. .. .	1,955	1,895	1,018	757	486	453	6,564
<b>Total .. .. .</b>	<b>2,472</b>	<b>2,219</b>	<b>1,244</b>	<b>926</b>	<b>634</b>	<b>506</b>	<b>8,001</b>
Number of square miles of territory per office .. .. .	126	40	536	976	1,539	52	371
Number of inhabitants per office .. .. .	1,635	1,348	1,240	1,098	1,190	705	1,338
Number of inhabitants per 100 square miles .. .. .	1,302	3,404	231	113	77	1,362	360

(a) Includes one semi-official post office.

(ii) *Employees and Mail Contractors.* The number of employees and mail contractors in the Central Office and in each of the States at 30th June, 1962, is given in the following table.

**NUMBER OF POSTAL EMPLOYEES AND MAIL CONTRACTORS AT  
30th JUNE, 1962**

Particulars	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Employees ..	1,478	35,590	27,524	13,888	9,751	6,893	3,837	98,961
Mail Contractors ..	..	2,099	1,071	1,191	354	298	240	5,253

3. **Gross Revenue, Branches—Postmaster-General's Department.**—(i) *States, 1961–62.* The gross revenue (actual collections) in respect of each branch of the Department during the year 1961–62 is shown in the following table.

**POSTMASTER-GENERAL'S DEPARTMENT: GROSS REVENUE, 1961-62(a)  
(£'000)**

Source	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Postal ..	2,174	18,443	13,028	5,625	3,936	2,777	1,121	47,104
Telegraph ..	7	2,442	1,906	1,343	864	654	232	7,448
Telephone ..	20	34,234	24,980	10,878	7,764	4,880	2,410	85,166
Miscellaneous ..	..	56	17	3	11	4	5	96
<b>Total ..</b>	<b>2,201</b>	<b>55,175</b>	<b>39,931</b>	<b>17,849</b>	<b>12,575</b>	<b>8,315</b>	<b>3,768</b>	<b>139,814</b>

(a) The figures in this table relate to revenue actually collected during the year as recorded for Treasury purposes. (b) Revenue from airmail services.

(ii) *Australia.* The following table shows the gross revenue (actual collections) of the Department for each of the five years 1957–58 to 1961–62.

**POSTMASTER-GENERAL'S DEPARTMENT: GROSS REVENUE, AUSTRALIA(a)  
(£'000)**

Source	1957–58	1958–59	1959–60	1960–61 (b)	1961–62
Postal ..	31,339	33,165	39,167	45,890	47,104
Telegraph ..	6,169	6,321	6,804	7,275	7,448
Telephone ..	55,344	59,717	71,209	82,732	85,166
Miscellaneous ..	(c) 3,924	(c) 4,264	(c) 4,451	224	96
<b>Total ..</b>	<b>96,776</b>	<b>103,467</b>	<b>121,631</b>	<b>136,121</b>	<b>139,814</b>

(a) See note (a) to previous table. (b) Figures not entirely comparable with those for earlier years. (c) Includes items allocated to other headings after 1959–60. (d) An amount of £43,625 has been excluded from 1960–61 figures published in Official Year Book No. 48. This amount represents receipts under the *Wireless Telegraphy Act* which are now credited to broadcasting and television revenue.

4. **Expenditure, Postmaster-General's Department.**—(i) *States.* The following table shows, as far as possible, the distribution of expenditure (actual payments) in each State during 1961–62, as shown by records kept for Treasury purposes. The table must not be regarded as a statement of the working expenses of the Department, since items relating to new works, interest, etc., are included therein.



**POSTMASTER-GENERAL'S DEPARTMENT: DISTRIBUTION OF  
EXPENDITURE, 1961-62(a)**

(£'000)

Particulars	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
<b>Expenditure from Ordinary Votes—</b>								
Salaries and payments in the nature of salary .. ..	752	18,999	13,695	7,330	4,749	3,136	1,769	50,430
General expenses .. ..	129	2,511	1,712	589	556	341	206	6,044
Stores and material .. ..	52	814	603	355	281	164	104	2,373
Mail services .. ..	(b)6,386	1,824	981	895	427	240	132	10,885
Engineering services (other than capital works) .. ..	1,439	15,937	11,675	5,664	3,936	2,968	1,566	43,185
Other services .. ..	125	..	..	..	..	..	..	125
<b>Total .. ..</b>	<b>8,883</b>	<b>40,085</b>	<b>28,666</b>	<b>14,833</b>	<b>9,949</b>	<b>6,849</b>	<b>3,777</b>	<b>113,042</b>
<b>Rent, repairs, maintenance .. ..</b>	<b>..</b>	<b>609</b>	<b>525</b>	<b>217</b>	<b>176</b>	<b>69</b>	<b>63</b>	<b>1,659</b>
<b>Proportion of audit expenses .. ..</b>	<b>6</b>	<b>25</b>	<b>18</b>	<b>10</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>71</b>
<b>Capital works and services—</b>								
Telegraph and telephone .. ..	100	16,372	11,853	4,277	3,943	2,535	1,431	40,511
New buildings, etc. .. ..	..	1,966	1,472	742	582	297	369	5,428
<b>Grand Total .. ..</b>	<b>8,989</b>	<b>59,057</b>	<b>42,534</b>	<b>20,079</b>	<b>14,656</b>	<b>9,754</b>	<b>5,642</b>	<b>160,711</b>

(a) The figures in this table represent actual payments made during the year as recorded for Treasury purposes. (b) Expenditure on airmail services.

(ii) *Australia.* The following table shows the distribution of expenditure (actual payments) of the Department for Australia as a whole for each of the years 1957-58 to 1961-62.

**POSTMASTER-GENERAL'S DEPARTMENT: EXPENDITURE, AUSTRALIA(a)**

(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
<b>Expenditure from Ordinary Votes—</b>					
Salaries and payments in the nature of salary .. ..	41,802	42,842	48,174	48,691	50,430
General expenses .. ..	4,532	4,729	5,255	5,745	6,044
Stores and material .. ..	2,332	2,508	2,563	2,567	2,373
Mail services .. ..	8,626	8,741	9,637	10,376	10,885
Engineering services (other than capital works) .. ..	34,353	36,342	40,604	41,006	43,185
Other services .. ..	84	88	108	142	125
<b>Total .. ..</b>	<b>91,729</b>	<b>95,250</b>	<b>106,341</b>	<b>108,527</b>	<b>113,042</b>
<b>Rent, repairs, maintenance .. ..</b>	<b>1,339</b>	<b>1,376</b>	<b>1,374</b>	<b>1,543</b>	<b>1,659</b>
<b>Proportion of audit expenses .. ..</b>	<b>48</b>	<b>55</b>	<b>63</b>	<b>66</b>	<b>71</b>
<b>Capital works and services—</b>					
Telegraph and telephone .. ..	29,998	32,209	35,658	37,296	40,511
New buildings, etc. .. ..	4,313	4,144	4,279	4,849	5,428
Other expenditure, not allocated to States	3,836	3,799	3,832	3,928	(b)
<b>Grand Total .. ..</b>	<b>131,263</b>	<b>136,833</b>	<b>151,547</b>	<b>156,209</b>	<b>160,711</b>

(a) See note (a) to previous table.  
Department.

(b) Items no longer debited against Postmaster-General's

5. *Profit or Loss, Postmaster-General's Department.*—The foregoing tables of gross revenue and expenditure represent actual collections and payments made, and cannot be taken to represent the actual results of the working of the Department for the year. The net results for each branch, after providing for working expenses (including superannuation, pensions and depreciation) and interest charges including exchange, are shown in the following table for the years 1960–61 and 1961–62.

**POSTMASTER-GENERAL'S DEPARTMENT: PROFIT OR LOSS, BRANCHES**  
(£'000)

Particulars	1961–62.				1960–61.
	Postal	Tele-graph	Tele-phone	All branches	All branches
Earnings .. .. .	47,310	7,513	85,383	140,206	136,147
Working expenses—					
Direct working expenses .. .. .	42,039	5,799	49,304	97,142	92,578
Management and administration expenses .. .. .	1,747	365	1,794	3,906	3,769
Depreciation .. .. .	514	382	12,810	13,706	12,385
Superannuation liability and pensions ..	2,703	540	4,085	7,328	7,007
<i>Total Working Expenses (excluding Interest) .. .. .</i>	<i>47,003</i>	<i>7,086</i>	<i>67,993</i>	<i>122,082</i>	<i>115,739</i>
Profit or loss before charging interest ..	307	427	17,390	18,124	20,408
Interest .. .. .	684	489	18,913	20,086	17,645
Profit or loss after charging interest ..	–377	–62	–1,523	–1,962	2,763

NOTE.—Minus sign (–) denotes loss.

6. *Fixed Assets.*—The following table shows particulars of the fixed assets of the Postmaster-General's Department from 1st July, 1961, to 30th June, 1962.

**POSTMASTER-GENERAL'S DEPARTMENT: FIXED ASSETS**  
(£'000)

Particulars	Net value 1st July, 1961	Capital expendi- ture, 1961–62	Gross value, 30th June, 1962	Assets dis- mantled or written off 1961–62	Net value, 30th June, 1962
Telecommunications plant .. .. .	452,392	55,451	507,843	8,317	499,526
Postal plant .. .. .	2,440	389	2,829	304	2,525
Engineers' movable plant .. .. .	11,181	1,307	12,488	821	11,667
Motor vehicles .. .. .	10,520	1,635	12,155	1,375	10,780
Other plant and equipment .. .. .	7,105	1,018	8,123	366	7,757
Buildings and land .. .. .	59,728	5,824	65,552	239	65,313
<b>Total .. .. .</b>	<b>543,366</b>	<b>65,624</b>	<b>608,990</b>	<b>11,422</b>	<b>597,568</b>

## § 2. Posts

1. **Postal Matter Dealt With.**—(i) *States, 1961–62.* The following table shows a summary of the postal matter dealt with in each State during the year 1961–62. Mail matter posted in Australia for delivery therein is necessarily handled at least twice, but only the number of distinct articles handled is included in the following table.

## POSTAL MATTER DEALT WITH(a), 1961-62

('000)

State	Letters (b)	News- papers and packets. (c)	Parcels (d)	Registered articles (e)	Letters (b)	News- papers and packets (c)	Parcels (d)	Registered articles (e)
	Posted for delivery within Australia				Posted for delivery overseas			
New South Wales ..	595,888	115,207	5,373	3,863	37,028	10,102	284	648
Victoria ..	489,436	74,364	4,485	2,953	8,513	2,576	117	164
Queensland ..	202,274	28,103	2,093	1,385	7,561	874	42	27
South Australia ..	143,442	13,717	1,266	769	5,497	762	38	65
Western Australia ..	110,089	9,562	915	525	6,041	1,238	21	49
Tasmania ..	40,184	7,494	210	380	489	24	14	5
<b>Australia ..</b>	<b>1,581,313</b>	<b>248,447</b>	<b>14,342</b>	<b>9,875</b>	<b>65,129</b>	<b>15,576</b>	<b>516</b>	<b>958</b>
	Received from overseas				Total postal matter dealt with			
	Letters (b)	News- papers and packets. (c)	Parcels (d)	Registered articles (e)	Letters (b)	News- papers and packets (c)	Parcels (d)	Registered articles (e)
New South Wales ..	49,820	32,840	459	1,023	682,736	158,149	6,116	5,534
Victoria ..	32,017	10,167	325	380	529,966	87,107	4,927	3,497
Queensland ..	4,500	4,950	77	59	214,335	33,927	2,212	1,471
South Australia ..	10,606	5,442	66	28	159,545	19,921	1,370	862
Western Australia ..	2,739	5,076	51	29	118,869	15,876	987	603
Tasmania ..	1,930	2,196	18	5	42,603	9,714	242	390
<b>Australia ..</b>	<b>101,612</b>	<b>60,671</b>	<b>996</b>	<b>1,524</b>	<b>1,748,054</b>	<b>324,694</b>	<b>15,854</b>	<b>12,357</b>

(a) Number of distinct articles handled.

(b) Includes letters, cards and other postal articles enclosed in envelopes and sorted with letters.

(c) Includes newspapers and postal articles not included in letter mail.

(d) Includes registered, cash on delivery and duty parcels.

(e) Includes registered articles other than parcels.

(ii) *Australia.* The next table shows the total postal matter dealt with in Australia in relation to the mean population during each of the years 1957–58 to 1961–62.

## TOTAL POSTAL MATTER DEALT WITH: AUSTRALIA

Year	Letters, postcards and letter-cards		Newspapers and packets		Parcels(a)		Registered articles other than parcels	
	Total (‘000)	Per million of mean popula- tion	Total (‘000)	Per million of mean popula- tion	Total (‘000)	Per million of mean popula- tion	Total (‘000)	Per million of mean popula- tion
1957–58 ..	1,538,509	158	323,684	33	17,726	1.8	15,566	1.6
1958–59 ..	1,599,400	161	317,633	32	18,903	1.9	15,156	1.5
1959–60 ..	1,602,830	158	319,831	31	16,433	1.6	13,671	1.
1960–61 ..	1,700,544	164	318,614	31	15,976	1.5	12,935	1.2
1961–62 ..	1,748,054	165	324,694	31	15,854	1.5	12,357	1.2

(a) Includes registered, cash on delivery and duty parcels.

During 1961-62, the total amounts paid for the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Branch, were as follows:—road £4,136,000; railway £1,346,000; sea £247,000; air—internal £1,289,000, oversea £4,971,000; grand total £11,989,000.

2. **Money Orders and Postal Notes.**—The issue of money orders and postal notes is regulated by sections 74-79 of the *Post and Telegraph Act 1901-1950*. The maximum amount for which a single money order payable within Australia may be obtained is £40, but additional orders will be issued upon request when larger amounts are to be remitted. The maximum amount permitted to be sent to any person in the dollar area is £A.5 a month and for remittances to countries outside the dollar area, £A.10 a week. A postal note is not available for a sum larger than twenty shillings.

The following table shows the number and value of money orders and postal notes issued in Australia in each of the years 1957-58 to 1961-62.

#### MONEY ORDERS AND POSTAL NOTES: TRANSACTIONS, AUSTRALIA

Year	Money orders			Postal notes		
	Issued		Net commission received	Issued		Poundage
	Number	Value		Number	Value	Value
	'000	£'000	£'000	'000	£'000	£'000
1957-58.. ..	8,668	78,411	581	18,937	9,155	340
1958-59.. ..	9,420	87,034	643	18,012	8,845	347
1959-60.. ..	9,535	94,335	805	16,492	8,380	324
1960-61.. ..	9,652	100,760	867	15,959	8,194	307
1961-62.. ..	9,797	102,130	876	15,514	8,096	307

Of the total money orders issued in Australia during 1961-62, 9,387,000 valued at £100,886,000 were payable in Australia, and 410,000 valued at £1,244,000 were payable overseas. Of the total money orders paid in Australia during 1961-62, 9,499,000 (£100,647,000) were issued in Australia, and 173,000 (£1,038,000) were issued overseas.

Of the total postal notes paid in Australia during 1961-62 (15,474,000 valued at £8,292,000) 10,796,000 (£6,135,000) were paid in the State in which issued, and 4,678,000 (£2,157,000) were paid in States other than those in which issued.

### § 3. Telegraphs

1. **General.**—A review of the development of telegraph services in Australia up to 1921 appeared in Official Year Book No. 15, page 625, and subsequent developments of importance have been dealt with in later issues. During the past few years, substantial improvements in both the speed and grade of telegraph services throughout Australia have been effected, the entire system being subjected to intensive re-organization, and these matters have been dealt with in some detail in recent issues of this Year Book.

2. **Telegraph and Telephone Mileage.**—At 30th June, 1962, the combined single-wire mileages for both telegraph and telephone purposes were:—aerial, underground and submarine cables, 9,877,000 miles; trunk telephone and telegraph cables, 452,000 miles; aerial wires, 1,382,000 miles. There were 122,000 miles of pole routes. Joint use is made of poles for power and telephone reticulation.

3. **Telegraph Offices.**—The numbers of telegraph offices, including railway telegraph offices in the various States at 30th June, 1962, were:—New South Wales, 2,839; Victoria, 2,268; Queensland, 1,699; South Australia, 998; Western Australia, 949; Tasmania, 576; total, 9,329.

4. **Telegrams.**—The following table shows the number of telegrams dispatched to places within Australia and to adjacent islands and to ships at sea, according to the class of message transmitted.

#### TELEGRAMS DISPATCHED WITHIN AUSTRALIA, 1961-62

('000.)

State	Paid and collect							Unpaid (departmental)	Total telegrams
	Ordinary	Meteorological	Urgent	Radio-grams	Press	Letter-grams	Total		
New South Wales	6,042	236	236	67	45	22	6,648	236	6,884
Victoria	3,680	160	149	6	23	9	4,027	129	4,156
Queensland	3,090	218	91	89	46	20	3,554	132	3,686
South Australia	1,469	99	49	18	18	16	1,669	45	1,714
Western Australia	1,463	154	21	83	13	16	1,750	36	1,786
Tasmania	421	47	12	1	2	6	489	24	513
<b>Australia</b>	<b>16,165</b>	<b>914</b>	<b>558</b>	<b>264</b>	<b>147</b>	<b>89</b>	<b>18,137</b>	<b>602</b>	<b>18,739</b>

With the steady expansion of telephone and radio communication networks since the second world war, the number of telegrams dispatched to places within Australia and to adjacent islands and to ships at sea has decreased, with few interruptions of trend, since the peak of 35,970,000 in 1945-46.

For particulars of telegrams received from, and dispatched to, other countries, *see* § 5 para. 2, pages 628-9.

### § 4. Telephones

1. **General.**—Particulars of the total mileage of lines used exclusively for telephone purposes are not available, but are combined with all other line mileage. Particulars of the total single wire mileage used for telephone, trunk and/or telegraph purposes are shown in § 3, para. 2, above. Developments in the telephone system in recent years have been dealt with in previous issues of this Year Book.

2. **Summary.**—Particulars relating to the telephone services in each State at 30th June, 1962, are shown in the following table.

#### TELEPHONE SERVICES: SUMMARY, 30th JUNE, 1962

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Exchanges	2,130	1,744	1,306	737	762	377	7,056
Services in operation	'000 666	536	215	153	98	51	1,719
Instruments in operation	'000 949	728	289	211	134	71	2,382
(i) Subscribers' instruments	'000 929	712	280	204	129	68	2,322
(ii) Public telephones	'000 10	6	4	2	2	1	25
(iii) Other local instruments	'000 10	10	5	5	3	2	35
Instruments per 100 of population	23.5	24.4	18.8	20.7	17.7	19.8	22.3

Of the total telephone services (1,718,569) in operation at 30th June, 1962, 652,692 or 38 per cent. were connected to exchanges situated beyond the limits of the metropolitan telephone networks, and 1,353,315 or 79 per cent. were connected to automatic exchanges.

3. **Trunk Line and Local Calls.**—Following the introduction of a scheme of extended local service areas on 1st May, 1960, whereby many telephone calls which would previously have been short distance trunk calls became local calls, precise statistics distinguishing between local calls and trunk line calls are no longer available. However, estimates of local and trunk line traffic during 1961–62 are as follows:—effective paid local calls, 1,650 million, trunk line calls, 76.5 million, representing averages of 960 local calls and 45 trunk calls per service respectively.

4. **Oversea Telephone Services.**—These services are provided by the Overseas Telecommunications Commission (see § 5, para. 1) for operation by the Postmaster-General's Department. At 30th June, 1962, telephone calls could be made from Australia direct to 123 countries. International telephone calls to and from Australia during 1961–62 numbered 135,664, an increase of 7,407 or 6 per cent. on 1960–61. A direct radiotelephone service was opened during the year to Vila in the New Hebrides. Switched services were established with British Honduras, British Guiana, Jamaica, Windward Islands, Leeward Islands, Balearic Islands, Canary Islands and Faroe Islands.

5. **World Telephone Statistics, 1962.**—The following table shows the number of telephones in use in various countries with two million or more telephones at 1st January, 1962, together with the number per 100 of population and the proportion in each country to the world total.

WORLD TELEPHONE STATISTICS(a) AT 1st JANUARY, 1962

Country	Number of telephones '000	Telephones per 100 of population	Proportion of total (per cent.)
United States of America .. .. .	77,422	42	51.6
United Kingdom(b) .. .. .	8,609	16	5.8
Germany, Federal Republic of .. .. .	6,509	12	4.4
Japan(b) .. .. .	6,345	7	4.2
Canada .. .. .	6,020	33	4.0
U.S.S.R. .. .. .	5,119	2	3.4
France .. .. .	4,649	10	3.1
Italy .. .. .	4,235	9	2.8
Sweden .. .. .	2,904	39	1.9
Australia(c) .. .. .	2,382	22	1.6
Other .. .. .	25,866	..	17.2
<i>Total</i> .. .. .	<i>150,060</i>	<i>..</i>	<i>100.0</i>

(a) Partly estimated. Information derived, in the main, from the *World's Telephones* compiled by the American Telephone and Telegraph Company. (b) At 31st March, 1960. (c) At 30th June, 1962.

## § 5. Oversea Telecommunication Services; Radiocommunication Stations Authorized

1. **General.**—The Overseas Telecommunications Commission (Australia) is the authority responsible for the operation of Australia's external telecommunication services by cable and radio.

The Commission was established in August, 1946, under the *Overseas Telecommunications Act*. This Act implemented, in Australia, a recommendation of the 1945 Commonwealth Telecommunications Conference for national ownership of the external telecommunication services of the British Commonwealth countries concerned and for the establishment of a representative advisory board, the Commonwealth Telecommunications Board, to co-ordinate their development.

The Commission provides telegraph, telex, photo-telegraph, and, in conjunction with the Postmaster-General's Department, telephone services with overseas countries and Australian territories. Leased one and two-way circuits are also provided for large commercial users. In addition, it operates the Australian coastal radio services for communication with ships at sea in Australian waters and high frequency radio services for communication with ships in any part of the world. The Commission's coastal radio stations also provide certain services to a number of remote stations within Australia and its territories.

Details of overseas communication systems operating in Australia prior to 1946 and developments leading to the establishment of the Commission were published in Official Year Book No. 37, pages 220-4.

To meet Australia's increasing demand for overseas communication channels, and because of limitations to performance and capacity inherent in current forms of telegraph cables and high frequency radio systems, the Commission is at present engaged, in partnership with the overseas telecommunications authorities of Britain, Canada and New Zealand, in constructing and laying a large capacity telephone cable across the Pacific Ocean, connecting Australia, New Zealand and Canada via Suva and Honolulu. This project stems from the Pacific Cable Conference held in Sydney, 28th September to 20th October, 1959, at which representatives of Britain, Canada, Australia and New Zealand met to discuss and make recommendations on the feasibility of such a cable, and to formulate a financial and construction programme.

Following agreement of the four governments concerned in the plan, work was commenced in August, 1960, and the first section, between Australia (Sydney) and New Zealand (Auckland), opened in July, 1962. The next section between New Zealand (Auckland) and Fiji (Suva), was opened in December, 1962, and when completed late in 1963, the cable will form part of the projected British Commonwealth round-the-world large capacity cable scheme, in which a complementary cable between Britain and Canada was officially opened late in 1961.

The Pacific Cable project is administered by a management committee consisting of representatives of the overseas telecommunication authorities of the four partner Governments.

**2. International Telegrams.**—(i) *Number of Telegrams.* The number of telegrams received from and dispatched overseas in each State during 1961-62 is shown hereunder.

#### INTERNATIONAL TELEGRAMS, 1961-62

('000)

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Received .. ..	731	(a) 424	94	69	75	(a) 22	1,415
Dispatched .. ..	671	488	101	77	77	21	1,435
<b>Total .. ..</b>	<b>1,402</b>	<b>912</b>	<b>195</b>	<b>146</b>	<b>152</b>	<b>43</b>	<b>2,850</b>

(a) Estimated.

The traffic in international telegrams to and from Australia has not varied greatly in recent years.

(ii) *Number of Words.* Particulars of the international business, originating and terminating in Australia, transacted over the cable and radio services during 1961-62 are shown in the following table.

**INTERNATIONAL TELEGRAMS: NUMBER OF WORDS, AUSTRALIA, 1961-62(a)**  
(‘000 words)

Class of telegram	Words transmitted to—			Words received from—		
	United Kingdom	Other countries	Total	United Kingdom	Other countries	Total
Letter .. ..	4,059	10,669	14,728	3,950	9,395	13,345
Ordinary .. ..	4,206	9,880	14,086	4,092	8,061	12,153
Press .. ..	2,890	1,133	4,023	8,971	2,692	11,663
Government .. ..	137	540	677	989	1,187	2,176
Greetings .. ..	709	655	1,364	582	868	1,450
Urgent .. ..	249	367	616	123	367	490
Other .. ..	..	8	8	..	117	117
<b>Total .. ..</b>	<b>12,250</b>	<b>23,252</b>	<b>35,502</b>	<b>18,707</b>	<b>22,687</b>	<b>41,394</b>

(a) Year ended 31st March.

Words transmitted to “ Other Countries ” included 9,848,190 words to other Commonwealth countries and 13,403,241 to foreign countries. Words received from “ Other Countries ” included 11,399,266 words from other Commonwealth countries and 11,287,528 from foreign countries.

3. *Oversea Telephone Services.*—See § 4. para. 4, page 627 for particulars of these services.

4. *Coast Stations.*—At 30th June, 1962, there were 104 radio stations established at points around the Australian coast and 15 about the coast of Papua and New Guinea and other External Territories. During the year ended 31st March, 1962, these stations handled 771,454 messages (622,679 paying, 33,405 free traffic and 115,370 meteorological) with a total of 17,137,877 words.

5. *Radiocommunication Stations Authorized.*—The following table shows particulars of the different classes of radiocommunication stations authorized in Australia and the External Territories at 30th June, 1962. Figures relate to radiocommunication (radio telegraph and radio telephone) stations only; particulars of broadcasting stations and of broadcast listeners’ licences are shown on pages 633 and 637 respectively.



## RADIOCOMMUNICATION STATIONS AUTHORIZED, 30th JUNE, 1962

Class of station	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	Ext. Terr.	Total
TRANSMITTING AND RECEIVING											
Fixed(a)—											
Aeronautical .. ..	36	6	15	6	15	7	12	1	98	26	124
Services with other countries ..	58	13			11				82	46	128
Outpost(b) .. ..	220		428	182	363	13	185		1,391	475	1,866
Other .. ..	228	179	149	65	91	27	31	3	773	73	846
Land(c)—											
Aeronautical .. ..	49	19	32	17	14	7	7	1	146	18	164
Base—											
Land mobile services ..	1,185	860	555	358	206	146	18	14	3,342	29	3,371
Harbour mobile services ..	24	17	22	8	22	7			100		100
Coast(d) .. ..	22	14	16	13	17	20	2		104	15	119
Special experimental .. ..	92	95	33	35	35	11	2		303	9	312
Mobile(e)—											
Aeronautical .. ..	274	185	181	73	122	26	24		885	42	927
Land mobile services ..	11,764	8,096	4,357	3,691	2,123	800	200	132	31,163	156	31,319
Harbour mobile services ..	154	115	51	41	72	16			449	21	470
Outpost .. ..	179		260	151	219	34	454		1,297	63	1,360
Ship .. ..	1,102	283	604	226	175	176	13		f 2,756	161	2,917
Amateur .. ..	1,428	1,351	481	544	316	149	25	40	4,334	69	4,403
<b>Total .. ..</b>	<b>16,815</b>	<b>11,233</b>	<b>7,184</b>	<b>5,410</b>	<b>3,801</b>	<b>1,439</b>	<b>973</b>	<b>191</b>	<b>f 47,223</b>	<b>1,203</b>	<b>48,426</b>

## RECEIVING ONLY

Fixed(a) .. ..	75	173	115	18	46	1	5		433		433
Mobile(e) .. ..		43	25	6					74		74
<b>Total .. ..</b>	<b>75</b>	<b>216</b>	<b>140</b>	<b>24</b>	<b>46</b>	<b>1</b>	<b>5</b>		<b>507</b>		<b>507</b>

## TOTAL STATIONS AUTHORIZED

<b>Grand Total .. ..</b>	<b>16,890</b>	<b>11,449</b>	<b>7,324</b>	<b>5,434</b>	<b>3,847</b>	<b>1,440</b>	<b>978</b>	<b>191</b>	<b>f 47,730</b>	<b>1,203</b>	<b>48,933</b>
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(a) Stations established at fixed locations for communication with other stations similarly established.  
 (b) Stations established in out-back areas for communication with control stations such as those of the Royal Flying Doctor Service. (c) Stations established at fixed locations for communication with mobile stations. (d) Land stations for communication with ocean-going vessels. (e) Equipment installed in aircraft (aeronautical), motor vehicles (land mobile services), harbour vessels (harbour mobile services) and ocean-going vessels (ships), and mobile equipment of organizations such as the Royal Flying Doctor Service. (f) Includes 177 stations which cannot be classified according to States, etc.

## BROADCASTING AND TELEVISION

## § 1. General

Broadcasting and television services in Australia operate under the *Broadcasting and Television Act 1942–1960* and comprise the National Broadcasting Service, the National Television Service, the Commercial Broadcasting Service and the Commercial Television Service. General control of these services is a function of the Australian Broadcasting Control Board (see below). Details of each service will be found on pages 631–6. Licence fees for commercial broadcasting and television stations are payable under the *Broadcasting and Television Stations Licence Fees Act 1956*.

The Australian Broadcasting Control Board, which was constituted on 15th March, 1949, consists of five members (including two part-time), and operates under the Ministerial jurisdiction of the Postmaster-General. Its principal functions, as set out in section 16 of the *Broadcasting and Television Act 1942-1960*, are to ensure:—(a) that services by broadcasting stations and television stations are provided in accordance with plans prepared from time to time by the Board and approved by the Minister; (b) that the technical equipment and operation of such stations are in accordance with such standards and practices as the Board considers to be appropriate; (c) that adequate and comprehensive programmes are provided by the stations to serve the best interests of the general public; and (d) that sources of interference to the transmission and reception of broadcast and televised programmes are detected and that assistance is given in the detection and prevention of such interference. In addition, the Board may exercise such other functions as are prescribed in relation to broadcasting stations and television stations. For information as to the powers and constitution of the Board, see Official Year Book No. 46 and earlier issues.

The Australian Broadcasting Commission, which consists of seven members, at least one of whom must be a woman, controls the activities of the National Broadcasting Service and the National Television Service.

## § 2. Broadcasting

1. *The National Broadcasting Service.*—(i) *General.* In sound broadcasting, the programmes of the National Broadcasting Service are provided by the Australian Broadcasting Commission, and the provision and operation of transmitters and technical facilities in the studios are the responsibility of the Postmaster-General's Department.

(ii) *Technical Facilities.* At 30th June, 1962, the National Broadcasting Service comprised 70 transmitting stations, 61 medium frequency and 9 high frequency. Medium-frequency station 2AN Armidale (New South Wales) is a recent addition. Details of the call signs and locations of stations at 30th June, 1961 were given in Official Year Book No. 48, pages 572-3.

The medium-frequency transmitters operate in the broadcast band 525 to 1,605 kilocycles per second. The high-frequency stations, using frequencies within the band 3 to 30 megacycles per second, provide service to listeners in sparsely populated parts of Australia such as the north-west of Western Australia, the Northern Territory, and northern and central Queensland, and in Papua and New Guinea and adjacent islands.

Many of the programmes provided by country stations are relayed from the capital cities, high-quality programme transmission lines being used for the purpose. A number of programme channels are utilized to link national broadcasting stations in the capital cities of Australia, and, when necessary, this system is extended to connect both the national and commercial broadcasting stations.

In June, 1962, 48 of the Australian medium-frequency stations were situated outside the six State capital cities. Additional country stations are to be established, and, when these additions are complete, the medium-frequency and high-frequency stations together will provide for clear reception of the programmes of the National Broadcasting Service in practically every part of Australia.

(iii) *Programme Facilities.* (a) *General.* The programmes of the Australian Broadcasting Commission cover a wide range of activities, which are indicated briefly in the following paragraphs. The proportion of broadcasting time allocated to the various types of programme during 1961-62 was as follows:—Classical music, 26.2 per cent.; light entertainment, 18.0 per cent.; light music, 10.3 per cent.; news, 7.3 per cent.; talks, 6.3 per cent.; sporting, 5.3 per cent.; drama and features, 3.7 per cent.; education, 3.6 per cent.; religious, 3.5 per cent.; parliament, 3.5 per cent.; children's session, 2.8 per cent.; rural, 1.8 per cent.; non-departmental, 7.7 per cent.

(b) *Music.* The A.B.C., in addition to its extensive activities in the field of musical broadcasting, is one of the largest concert-giving organizations in the world. Its regular broadcasts command a large audience, and a total of 950,768 people attended A.B.C. concerts during 1961-62. There are symphony orchestras in Sydney, Melbourne, Brisbane, Adelaide, Perth and Hobart, which have developed from the studio broadcasting orchestras set up in 1936.

In 1961-62, the A.B.C. organized 570 public orchestral concerts (including 188 free concerts for school children and 46 free concerts for adults) and 177 public recitals by famous artists throughout the Commonwealth. In 1959, the Czech Philharmonic Orchestra became the first overseas orchestra to visit Australia.

(c) *Drama and Features.* Drama programmes are designed to give listeners opportunities, which they might not otherwise have, of hearing the world's great plays as well as adaptations of the best modern stage plays and also those written specially for broadcasting. The main regular radio drama programmes are broadcast on Sunday afternoons and Sunday and Monday evenings, and special series of longer plays are also given at various times. In recent years, the technique of the feature programme has also been developed. The feature is a form of entertainment which is unique to radio, consisting of specially written programmes designed to present information in an interesting way.

(d) *Youth Education.* The A.B.C. provides a regular series of broadcasts to schools as an addition to normal class-room education. The total number of listening schools at the end of June, 1962, was 9,984 or about 95 per cent. of all schools, State and private, throughout the Commonwealth. (See also Chapter XVIII. Education, Cultural Activities, and Research, on this subject.)

(e) *Talks.* The aim of the Talks Department is to provide programmes which will keep the listener well informed on current affairs and on general topics. Many of the talks in the first category are now presented in a magazine type of session consisting of a number of short items linked by a narrator. An extension of this type of programme is the documentary. Major controversial topics are covered in sessions such as the "Nation's Forum of the Air" and "I Put it to You". Another session in this type of programme is "News Review", containing comments on the news of the day recorded over landline from all States of the Commonwealth and, in the case of significant world events, from overseas by radio-telephone.

(f) *Rural Broadcasts.* The Rural Broadcasts Department exchanges programmes with several overseas countries and provides service, educational, and entertainment programmes all designed to be of value to the man-on-the-land and industries allied with primary production. A complete weather and marketing service is provided. Rural programmes are broadcast on a national, State, and regional basis, with separate programmes originating from 20 Regional Stations and relayed through a total of 33 stations. The 20 Rural Officers in Regional Stations present specific information and educational programmes in relation to their own regions. During 1961-62, a total of 7,486 rural talks and interviews, as well as 8,684 weather reports and 6,968 market reports were broadcast.

(g) *News.* The Commission collects all its Australian (including Papua and New Guinea) news through its own staff journalists and part-time correspondents. It also maintains a news room in London for the selection and transmission of news obtained from major overseas agencies, and has special representatives in south-east Asia. Regional bulletins are broadcast from country centres and also from capital cities to cover near-city districts. Radio Australia (the Overseas Service of the A.B.C.) broadcasts Australian and overseas news daily in English, French, Mandarin, Indonesian, Japanese, Cantonese, Vietnamese and Thai, with special attention to Asia and the Pacific. Each day, the A.B.C. re-broadcasts two news bulletins from the British Broadcasting Corporation. The A.B.C. broadcasts more than 160 news bulletins each day, including those given over Radio Australia.

(h) *Other Activities.* The proceedings of the Federal Parliament are broadcast regularly on one of the two national transmitters in each capital city, one in Newcastle and one domestic short-wave station (VLR).

The National Children's Hour, presented seven days a week, is composed of over 40 programme items, including stories, music, games, art, literature, natural history and sport.

In co-operation with the various religious denominations, the A.B.C. broadcasts several religious sessions each week-day in addition to those given on Sundays. These religious broadcasts include relays of normal church services and a variety of special programmes of talks and sacred music. The modern trend towards the use of religious drama is also followed.

The variety and sporting programmes of the A.B.C. provide the lighter side of the service. With its variety session, the policy of the A.B.C. is to assist local artists in order to increase the amount of first-class talent in this country, and encouragement is also given to Australian composers of light music.

A comprehensive coverage of sport at home and abroad is provided by the A.B.C. On Saturday afternoons, the sporting panel provides listeners with progress results, scores and descriptions from several fields of sport. Events of international interest such as Test matches and the Davis Cup are covered by simultaneous descriptions from A.B.C. commentators.

**2. The Commercial Broadcasting Service.**—Commercial broadcasting stations are operated under licences granted and renewed by the Postmaster-General after taking into consideration any recommendations which have been made by the Broadcasting Control Board. The initial period of a licence is five years and renewals are granted for a period of one year. The fee payable for a licence is £25 on the grant of the licence, and thereafter £25 a year plus one per cent. of the gross earnings of the station from the broadcasting of advertisements or other matter during the preceding financial year. Licensees of these stations rely for their income on the broadcasting of advertisements and other publicity.

**3. Oversea Broadcasting Service.**—There are seven high-frequency stations at Shepparton, Victoria, which provide the overseas service known as "Radio Australia". As in the case of the National Broadcasting Service, these stations are maintained and operated by the Postmaster-General's Department, and their programmes are arranged by the A.B.C. During certain periods, station VLG Lyndhurst is also used for the purpose of overseas transmission. The programmes, which give news and information about Australia presented objectively, as well as entertainment, are directed mainly to south-east Asia and the Pacific. The overseas audience has grown very substantially in recent years, as evidenced by a large and increasing number of letters from listeners abroad.

**4. Broadcasting Stations.**—The following table shows the number of broadcasting stations in operation at 30th June, 1962.

BROADCASTING STATIONS, 30th JUNE, 1962

Type of station	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Papua and New Guinea	Total
National—										
Medium frequency	17	5	13	8	7	4	4	2	1	61
High frequency—										
Domestic	1	(a) 3	2	..	2	..	..	..	1	9
Overseas	..	7	..	..	..	..	..	..	..	7
Commercial	37	20	21	8	14	8	1	1	..	110

(a) One station (VLG) is shared between domestic and overseas service.

Tables showing the call sign, location, frequency and aerial power of national and commercial broadcasting stations in operation at 30th June, 1962, are shown in *Transport and Communication*, Bulletin No. 53.

### § 3. Television

1. **General.**—Television services in Australia operate under the *Broadcasting and Television Act 1942*—1960 and comprise the National Television Service and the Commercial Television Service.

2. **The National Television Service.**—(i) *General.* The A.B.C. provides the programmes for the National Television Service from stations provided and operated by the Postmaster-General. At 31st December, 1962, seven stations had been established—ABN Sydney, commenced operation, 5th November, 1956; ABV Melbourne, commenced operation, 18th November, 1956; ABQ Brisbane, commenced operation, 2nd November, 1959; ABS Adelaide, commenced operation, 11th March, 1960; ABW Perth, commenced operation, 7th May, 1960; and ABT Hobart, commenced operation, 4th June, 1960—each of which operates on Channel 2; ABC channel 3, Canberra, commenced operation 18th December, 1962. Additional national television stations have been authorized as follows:—New South Wales—Central Tablelands area ABCN (channel 1), Newcastle—Hunter River area ABHN (channel 5), Richmond—Tweed Heads area ABRN (channel 6), Illawarra area ABWN (channel 5A); Victoria—Bendigo area ABEV (channel 1), Ballarat area ABRV (channel 3), Latrobe Valley area ABLV (channel 4), Goulburn Valley area ABGV (channel 3); Queensland—Darling Downs area ABDQ (channel 3), Rockhampton area ABRQ (channel 3), Townsville area ABTQ (channel 3); Tasmania—north-eastern Tasmania area ABNT (channel 3). It is planned that these services will be in operation by June, 1964.

(ii) *Programme Facilities.* (a) *General.* The television programmes provided by the A.B.C. cover a wide range of activities. The proportion of television time allocated among the A.B.C.'s various departments to 30th June, 1962, was as follows:—Drama and features, 22.1 per cent.; talks, 18.4 per cent.; sport, 11.1 per cent.; children's session, 10.8 per cent.; news, 9.1 per cent.; light entertainment, 8.0 per cent.; education, 7.4 per cent.; music, 3.2 per cent.; religion, 2.8 per cent.; rural services, 2.5 per cent.; non-departmental, 4.6 per cent. A summary of the activities of the departments in the field of television is given in the following paragraphs. Transmission hours in Sydney, Melbourne, Brisbane, Adelaide, Perth and Hobart, for the year ended 30th June, 1962, totalled 17,135.

(b) *Talks.* In television, talks cover a very wide field, ranging from commentaries on international affairs to panel games and outside telecasts of public events. Discussions, topical interviews, magazine programmes, women's programmes, demonstrations and film and studio documentaries are all part of the regular output.

(c) *Drama and Features.* A considerable proportion of television time is devoted to drama and features, and "live" television plays featuring Australian artists may usually be seen fortnightly in all State capitals. A Television Writers' Workshop gives writers practical advice on television writing. Of 24 live plays produced during 1961–62, 9 were by Australian authors and, in addition, twelve half-hour episodes of the locally written serials, "The Outcasts" and "The Patriots", were telecast.

(d) *Music.* During 1957, the A.B.C.'s musical activities extended to the field of television. A number of public concerts and studio performances were successfully telecast and there is reason to believe that the new medium will contribute to the further development of musical appreciation in Australia.

(e) *Rural Services.* Weather reports and forecasts are telecast six evenings a week on National T.V. stations. In Sydney and Melbourne, there are two half-hour magazines each week, namely "Country Call" and "Town and Country". These include rural film items from all States, topical interviews and demonstrations, and gardening items. Outside broadcast programmes are devised in all States at Royal Shows and other places of rural interest. The National Junior Farmer Radio and Television Competition is a major annual event. Film items are regularly exchanged with member countries of the European Broadcasting Union. In all States, a weekly programme is "To Market, To Market", a practical buying guide for housewives. A half-hour rural magazine programme, "Country Call", which includes local interviews, demonstrations and films, and films syndicated from Sydney, was commenced in Brisbane, Adelaide, Perth and Hobart.

The aim of rural broadcasts in television is to provide consumer-interest material for urban viewers and to convey to them aspects of food production and country life and to provide a rural news and extension service to farmer viewers.

(f) *Education.* The A.B.C. provides a daily television programme for schools in all Australian States with certain series repeated to meet their convenience. In addition, there is a daily programme for pre-school children entitled "Kindergarten Playtime". At the adult level, there are two television programmes weekly, designed in series and known as "University of the Air". These programmes are presented in the evening.

(g) *News.* Television news bulletins and newsreels have been included in the programmes presented in both Sydney and Melbourne since the television services began in November, 1956. Since then, those news items have been included in the programmes of other State capitals. The A.B.C. is a member of the British Commonwealth International Newsfilm Agency (B.C.I.N.A.), through which it receives world-wide television newsfilm and provides newsfilm of Australian origin for international distribution.

(h) *Other Activities.* Special television programmes are presented for children, including filmed material obtained on an exchange basis from overseas television organizations. Special religious services and programmes have also been televised. Outside television cameras have covered a number of sporting events, including the Olympic Games, Davis Cup tennis, Test and Sheffield Shield cricket, swimming championships and the Commonwealth Games.

3. **The Commercial Television Service.**—Commercial television stations are operated under licences granted by the Postmaster-General. Licences for commercial television stations have been granted as follows:—*Australian Capital Territory*—Canberra area CTC (channel 7), commenced operations 2nd June, 1962; *New South Wales*—Sydney ATN (channel 7), commenced operations 2nd December, 1956; TCN (channel 9), commenced operations 16th September, 1956; CBN (channel 8), Central Tablelands area, commenced operations 17th March, 1962; NBN (channel 3), Newcastle—Hunter River area, commenced operations 4th March, 1962; RTN (channel 8), Richmond—Tweed Heads area, commenced operations 12th May, 1962; WIN (channel 4), Illawarra area, commenced operations 18th March, 1962; *Victoria*—Melbourne GTV (channel 9), commenced operations 19th January, 1957; HSV (channel 7), commenced operations 4th November, 1956; BCV (channel 8), Bendigo area, commenced operations 23rd December, 1961; BTV (channel 6), Ballarat area, commenced operations 27th April, 1962; GLV (channel 10), Latrobe Valley area, commenced operations 9th December, 1961; GMV (channel 6), Goulburn Valley area, commenced operations 23rd December, 1961; *Queensland*—Brisbane BTQ (channel 7), commenced operations 1st November, 1959; QTQ (channel 9), commenced operations 16th August, 1959; DDQ (channel 10), Darling Downs area, commenced operations 13th July, 1962; TNQ (channel 7), Townsville area, commenced operations, 1st November, 1962; RTQ (channel 7), Rockhampton area, expected to commence operations in 1963; *South Australia*—Adelaide ADS (channel 7), commenced operations 24th October, 1959; NWS (channel 9) Adelaide, commenced operations 5th September, 1959; *Western Australia*—Perth TVW (channel 7) commenced operations 16th October, 1959; *Tasmania*—Hobart TVT (channel 6), commenced operations 23rd May, 1960; TNT (channel 9), north-eastern Tasmania area, commenced operations 26th May, 1962.

The initial grant of a licence is for a period of five years and thereafter the licence is renewable annually. The fee payable is £100 for the first year and thereafter £100 a year plus one per cent. of the station's gross earnings from the televising of advertisements or other matter during the preceding financial year.

4. **Extension of Television Services.**—The Government has approved the establishment of a national station in each of the following areas, and applications for the grant of licences to operate a commercial television station in each area were invited on 13th November, 1961:—*New South Wales*—Upper Namoi (Tamworth); South Western Slopes and Eastern Riverina (Wagga-Cootamundra); Grafton-Kempsey; Manning River (Taree); Central

Western Slopes (Dubbo); Murrumbidgee Irrigation Area (Griffith); Bega-Cooma; Broken Hill; *Victoria*—Upper Murray; Mildura; Murray Valley (Swan Hill); *Queensland*—Wide Bay (Maryborough); Cairns; Mackay; Southern Downs (Warwick); *South Australia*—Spencer Gulf North; South East (Mt. Gambier); *Western Australia*—Bunbury; Southern Agricultural Area (Katanning-Albany); Central Agricultural Area (Northam-York). The Government has now approved the grant of licences for the Upper Namoi, South Western Slopes and Eastern Riverina, Grafton-Kempsey, Upper Murray, and Wide Bay areas. The grant of a licence in the Spencer Gulf Area has been deferred, as the only applicant did not desire to proceed with the application at present. No applications were received for the Southern Agricultural or Central Agricultural Areas in Western Australia. The Australian Broadcasting Control Board will hold public inquiries, pursuant to the *Broadcasting and Television Act 1942–1960*, into the applications for the remaining areas during 1963.

When the stations commence operation, it is estimated that 91 per cent. of the Australian people will be able to receive a television service.

#### § 4. Licences, Revenue from Fees, etc.

1. **Broadcast Listeners' and Television Viewers' Licences.**—(i) *General.* Broadcast listeners' and television viewers' licences are issued at post offices in accordance with the provisions of the *Broadcasting and Television Act 1942–1960*, which stipulates that, except as prescribed, a person shall not use, maintain or have in his possession a broadcast or television receiver unless there is in force a licence which applies to that receiver. A broadcast listener's licence authorizes the operation of any broadcast receiver, and a television viewer's licence any television receiver, which is:—(a) in the possession of the holder of a licence, or of a member of his family, at the address specified in the licence and/or ordinarily kept at that address; (b) installed in a vehicle which is ordinarily in the possession of the holder, or a member of his family, and is ordinarily kept at that address while not in use.

The fee for a broadcast listener's licence or a renewal thereof is:—Zone 1, £2 15s.; Zone 2, £1 8s. Zone 1 is the area within approximately 250 miles of specified broadcasting stations and Zone 2 is the remainder of the Commonwealth. The fee for a licence granted to certain types of pensioners is 10s. in Zone 1 and 7s. in Zone 2.

A licence may be granted free of charge to a blind person over 16 years of age or to a person or authority conducting a school. Inmates of a hospital or charitable institution are covered by the licence held by the institution.

The fee for a television licence is £5 except in the case of certain classes of pensioners who pay a fee of £1 5s. Licences are granted free to blind persons and to schools.

Amendments to the *Broadcasting and Television Act 1942–1960* during 1960 included provisions relating to the licensing of broadcast receivers and television receivers installed in lodging houses or let for hire. The relevant sections were proclaimed to come into force on 3rd July, 1961. Any firm carrying on a business that consists wholly or partly in letting out receivers on hire is required to licence each such receiver.

Hirers' licences may be granted for any period not exceeding one year, and may apply to one or a number of receivers. Lodging house licences are issued for a period of one year, and lodging house keepers are required to hold one licence for each broadcast receiver or television receiver provided by them.

(ii) *Broadcast Listeners' Licences.* (a) *Number in Force.* The following table shows the number of broadcast listeners' licences in force at five-year intervals from 1925 to 1960 and for 1961 and 1962.

## BROADCAST LISTENERS' LICENCES IN FORCE

At 30th June—	N.S.W.(a)	Vic.	Qld	S.A.(b)	W.A.	Tas.	Aust.
1925 .. ..	34,857	20,290	1,267	3,331	3,562	567	63,874
1930 .. ..	111,253	140,072	23,335	25,729	5,755	6,048	312,192
1935 .. ..	279,166	237,247	67,546	76,515	41,257	20,121	721,852
1940 .. ..	458,256	348,264	151,152	124,928	87,790	42,191	1,212,581
1945(c) ..	548,074	394,315	180,089	146,611	98,210	47,930	1,415,229
1950(c) ..	683,271	505,078	260,033	195,261	133,199	64,369	1,841,211
1955 .. ..	746,050	549,690	293,542	225,593	150,199	71,602	2,034,676
1960 .. ..	832,659	606,587	344,198	249,148	171,693	78,900	2,283,185
1961 .. ..	825,528	589,437	341,101	249,475	172,881	77,420	2,255,842
1962 .. ..	812,822	585,752	328,525	249,673	168,676	75,014	2,220,462

(a) Includes the Australian Capital Territory. (b) Includes the Northern Territory. (c) Excludes licences for receivers in excess of one. These licences were introduced in July, 1942, and were abolished on 31st December, 1951.

Of the 2,220,462 broadcast listeners' licences in force at 30th June, 1962, 1,307,125 or 58.9 per cent. were held by persons living in metropolitan areas and 913,337 or 41.1 per cent. by persons in country areas. Short-term hirers' licences (included above) at 30th June, 1962, were:—New South Wales, 472; Victoria, 119; Queensland, 38; and South Australia, 766.

(b) *Revenue Received from Fees.* The following table shows the revenue received from broadcast listeners' licence fees for the years 1957–58 to 1961–62.

REVENUE RECEIVED FROM BROADCAST LISTENERS' LICENCE FEES  
(£'000)

Year	N.S.W.(a)	Vic.	Qld	S.A.(b)	W.A.	Tas.	Aust.
1957–58 .. ..	1,952	1,422	791	604	398	191	5,358
1958–59 .. ..	2,116	1,528	812	621	422	192	5,691
1959–60 .. ..	2,023	1,545	846	626	420	196	5,656
1960–61 .. ..	1,992	1,488	827	619	419	191	5,536
1961–62 .. ..	1,957	1,452	797	615	407	185	5,413

(a) Includes the Australian Capital Territory.

(b) Includes the Northern Territory.

(iii) *Television Viewers' Licences.* (a) *Number in Force.* The following table shows the number of television viewers' licences in force each year at 30th June, 1957, to 1962.

## TELEVISION VIEWERS' LICENCES IN FORCE

At 30th June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1957 .. ..	28,912	44,986	..	..	..	(a) { 11	73,909
1958 .. ..	143,422	147,721	..	..	..	{ 43	291,186
1959 .. ..	300,871	270,073	360	6,124	..	{ 74	577,502
1960 .. ..	409,334	353,091	67,337	84,967	35,604	4,662	954,995
1961 .. ..	488,516	401,395	113,954	124,808	69,628	18,985	1,217,286
1962 .. ..	564,707	460,558	142,422	143,794	83,951	29,003	1,424,435

(a) These licences were for television sets in the north coast area of Tasmania which were able to receive programmes from Victoria.

Of 1,424,435 television viewers' licences in force at 30th June, 1962, 46,866 were held by short-term hirers, and therefore could not be separated into metropolitan licences or country licences. Persons living in the metropolitan area held 1,078,393 or 78 per cent. of the remainder. Short-term hirers' licences (included above) at 30th June, 1962, were:—New South Wales, 10,067; Victoria, 8,460; Queensland, 7,754; South Australia, 13,095; Western Australia, 5,934; and Tasmania, 1,556.



(b) *Revenue Received from Fees.* The following table shows the revenue received from television viewers' licence fees during the years 1957-58 to 1961-62.

**REVENUE RECEIVED FROM TELEVISION VIEWERS' LICENCE FEES**  
(£'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1957-58 .. ..	698	724	..	.. 27	..	..	1,422
1958-59 .. ..	1,449	1,298	(a)	406	165	(b) 21	2,775
1959-60 .. ..	1,994	1,717	321	594	324	91	4,624
1960-61 .. ..	2,292	1,938	542	651	380	138	5,781
1961-62 .. ..	2,623	2,170	664				6,626

(a) £262.

(b) £356.

## CHAPTER XV

### WELFARE SERVICES

NOTE.—Further information on subjects dealt with in this chapter may be found in the annual *Bulletin Finance, Part I.—Public and Private Finance*. Current and summarized information is contained in the *Quarterly Summary of Australian Statistics* and the *Monthly Review of Business Statistics*.

#### COMMONWEALTH EXPENDITURE ON SOCIAL AND HEALTH SERVICES

NOTE.—The Commonwealth Welfare Services outlined in this chapter are those administered by the Commonwealth Department of Social Services. Particulars of benefits provided under the National Health Service appear in Chapter XVII. Public Health, page 698.

Particulars of Commonwealth capital expenditure on mental hospitals and the Anti-Tuberculosis campaign are given in Chapter XVII. Public Health (*see* pp. 700 and 703). Grants are made to private organizations for the construction of homes for elderly people (*see* p. 654).

Information concerning the cost of administering each benefit separately is not compiled. Particulars of the cost of administering the Department of Health and the Department of Social Services may be found in Chapter XXI. Public Finance—Commonwealth Consolidated Revenue Fund Expenditure.

#### National Welfare Fund

The National Welfare Fund was established by the *National Welfare Fund Act 1943* to finance a scheme of national welfare. In introducing this measure to Parliament, the Prime Minister said that part of the scheme was to be introduced immediately, and part was to be deferred until after the end of the war. A certain balance, which would therefore accrue to the fund, would be invested in Commonwealth securities, and would thus provide finance for the war effort.

The fund operated from 1st July, 1943. At its commencement, it was used to finance funeral benefits and maternity allowances. Other social and health benefits were made a charge on the fund from time to time. At present, expenditure on all benefits except repatriation and a few minor social and health benefits is met from the fund. The fund is used only to finance the benefits themselves; it is not used to finance the cost of administering the benefits, or of capital works associated with the benefits.

For particulars of the income of the fund, *see* Chapter XXI. Public Finance—Commonwealth Consolidated Revenue Fund Expenditure. The following table sets out expenditure from the fund during 1961–62.

**COMMONWEALTH EXPENDITURE FROM NATIONAL WELFARE FUND  
ON SOCIAL AND HEALTH SERVICES, 1961-62.**  
(£'000)

Service	N.S.W.	Vic.	Q'ld	S.A.	W.A.	Tas.	N.T. (a)	A.C.T. (a)	Abr- oad	Total
<b>Social Services—</b>										
Age and Invalid Pen- sions ..	72,143	44,682	28,368	16,422	12,172	5,702	359	214	183	180,245
Child Endowment ..	23,617	18,021	10,085	6,336	5,103	2,497	278	416	25	66,378
Commonwealth Re- habilitation Service ..	190	220	108	102	78	25	..	..	..	723
Funeral Benefits ..	150	97	59	31	26	12	..	1	..	376
Maternity Allowances ..	1,442	1,057	589	344	279	145	23	24	5	3,908
Unemployment Bene- fits ..	4,402	3,603	2,636	893	726	348	7	22	..	12,637
Sickness Benefits ..	1,104	647	429	199	190	81	5	10	..	2,665
Special Benefits(b) ..	166	278	79	33	27	19	..	1	..	603
Widows' Pensions ..	5,729	3,680	2,516	1,377	1,186	519	30	32	25	15,094
<b>National Health Ser- vices—</b>										
Hospital Benefits ..	9,038	5,493	2,994	1,966	1,998	651	30	32	..	22,202
Medical Benefits ..	4,534	2,802	1,159	1,186	942	289	..	..	..	10,912
Medical Benefits for Pensioners ..	1,915	1,094	589	390	286	115	..	9	..	4,398
Nutrition of Children ..	1,327	1,034	564	332	263	171	23	28	..	3,742
Pharmaceutical Bene- fits ..	10,188	7,739	3,648	2,142	1,795	545	..	(c) 35	..	26,092
Pharmaceutical Bene- fits for Pensioners ..	4,000	2,082	1,351	829	610	225	..	..	..	9,097
Tuberculosis Cam- paign—										
Allowances ..	313	199	191	83	40	47	..	..	..	873
Maintenance and Surveys(d) ..	1,495	1,110	783	345	397	184	..	(e) 19	..	4,333
Miscellaneous(f) ..	75	55	112	11	17	27	19	(g) 532	..	848
Rental Rebates ..	..	..	65	..	..	..	..	..	..	65
<b>Total ..</b>	<b>141,828</b>	<b>93,893</b>	<b>56,325</b>	<b>33,021</b>	<b>26,135</b>	<b>11,602</b>	<b>774</b>	<b>1,375</b>	<b>238</b>	<b>365,191</b>

(a) Payments for some Health Services to residents of the Northern Territory and the Australian Capital Territory are included in the amounts shown for States. (b) Includes special benefits to migrants in reception and training centres. (c) Includes payments to Bush Nursing Centres and the Royal Flying Doctor Service. (d) Paid to the State Governments as a contribution towards the cost of surveys and the maintenance of institutions for the treatment of tuberculosis. (e) Includes costs of manufacturing B.C.G. Vaccine for distribution throughout Australia. (f) This item covers the cost of district laboratory services, the free supply of prophylactic materials and biological products (e.g., insulin, poliomyelitis and diphtheria prophylactics), the supply and maintenance of hearing aids for children, subsidies to voluntary organizations conducting home-nursing services, and certain costs associated with the blood transfusion services of the Australian Red Cross Society. (g) Includes £255,990 for the production of poliomyelitis vaccine, £100,000 for running expenses of the Blood Fractionation Plant at the Commonwealth Serum Laboratories, £107,668 for the Home Nursing Service throughout Australia, and £20,300 for the production of smallpox vaccine.

Expenditure from the fund during each of the years 1957-58 to 1961-62, and the amount per head of population for each service during 1961-62, are shown in the following table.

**COMMONWEALTH EXPENDITURE ON SOCIAL AND HEALTH SERVICES  
FROM THE NATIONAL WELFARE FUND**

Service.	1957-58	1958-59	1959-60	1960-61	1961-62	
					Amount £'000	Per head £
<b>Social Services—</b>	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>		
Age and Invalid Pensions ..	121,577	129,571	147,005	157,926	180,245	16.99
Child Endowment(a) ..	58,734	67,540	62,532	74,303	66,378	6.26
Commonwealth Rehabilitation Service ..	608	670	681	693	723	0.07
Funeral Benefits ..	325	346	353	367	376	0.04
Maternity Allowances ..	3,560	3,599	3,652	3,898	3,908	0.37
Unemployment, Sickness and Special Benefits ..	7,331	8,652	7,253	7,140	15,905	1.50
Widows' Pensions ..	9,832	10,777	12,137	13,468	15,094	1.42
<b>National Health Services—</b>						
Hospital Benefits ..	10,823	14,802	18,599	20,668	22,202	2.09
Medical Benefits ..	7,086	7,780	9,292	9,976	10,912	1.03
Medical Benefits for Pensioners ..	3,198	3,806	4,113	4,200	4,398	0.41
Nutrition of Children ..	2,756	3,069	3,359	3,560	3,742	0.35
Pharmaceutical Benefits ..	12,911	18,455	20,761	20,543	26,092	2.46
Pharmaceutical Benefits for Pensioners ..	2,123	2,517	3,574	7,338	9,097	0.86
Tuberculosis Campaign—						
Allowances ..	1,255	1,063	1,026	947	873	0.08
Maintenance ..	4,511	4,787	4,337	4,179	4,333	0.41
Miscellaneous ..	855	768	689	1,046	848	0.08
Rental Rebates ..	..	25	..	352	65	0.01
<b>Total ..</b>	<b>247,485</b>	<b>278,227</b>	<b>299,363</b>	<b>330,604</b>	<b>365,191</b>	<b>34.43</b>

(a) See footnote (a) to table on p. 646.

## COMMONWEALTH SOCIAL SERVICES

## § 1. Introduction

Under the provisions of section 51 of the Constitution, the Commonwealth Government is empowered to legislate on:—

“(xxiii) Invalid and old-age pensions:

(xxiiiA) The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:”.

The latter paragraph was inserted in the constitution after being accepted by the electors at a referendum on 28th September, 1946. The enabling Act was assented to on 19th December, 1946.

Before 1947, each social service benefit was paid under a separate Act. On 1st July, 1947, with the passage of the *Social Services Consolidation Act 1947*, all Acts providing social service benefits were amalgamated. This Act eliminated certain anomalies and obsolete provisions and changed the title “old-age pension” to “age pension”. The word “Consolidation” was dropped from the short title of the Act in 1954. The Act is at present styled the *Social Services Act 1947–1962*.

The social service benefits provided by the Commonwealth Government, and the date on which each came into operation, are:—

Age pension	..	..	..	1st July, 1909
Child endowment (for other than first child)	..	..	..	1st July, 1941
Child endowment (for first child)	..	..	..	20th June, 1950
Commonwealth Rehabilitation Service	..	..	..	10th December, 1948
Funeral benefit	..	..	..	1st July, 1943
Invalid pension	..	..	..	15th December, 1910
Maternity allowance	..	..	..	10th October, 1912
Sickness benefit	..	..	..	1st July, 1945
Special benefit	..	..	..	1st July, 1945
Supplementary assistance (age, invalid and widow's pensions)	..	..	..	15th October, 1958
Unemployment benefit	..	..	..	1st July, 1945
Widow's pension	..	..	..	30th June, 1942
Wives' and children's allowances for pensioners who are invalids	..	..	..	8th July, 1943.

## § 2. Age and Invalid Pensions

Age pensions are payable to men, 65 years of age and over, and women, 60 years of age and over, who are British subjects and who have resided in Australia continuously for at least 10 years, which need not be immediately prior to the date of claim for a pension. If a person has completed five years but not 10 years continuous residence and has lived in Australia for periods which in total exceed 10 years, the period of continuous residence otherwise required is reduced by the total of his periods of residence in Australia in excess of 10 years. Absence in a Territory of the Commonwealth, any periods of absence during which a person's home remained in Australia, and absences in certain other circumstances, are counted as residence. Residence in New Zealand or the United Kingdom may be treated as residence in Australia.

Invalid pensions are payable to persons, 16 years of age and over, who have resided in Australia for a continuous period of five years (including certain absences at any time), and who are permanently incapacitated for work to the extent of at least 85 per cent., or permanently blind. If the incapacity or blindness first occurred outside Australia, except

during a temporary absence, a total of 10 years' residence is necessary. But if a person has completed five years but not 10 years continuous residence and has lived in Australia for periods which, in total exceed 10 years, the period of continuous residence otherwise required is reduced by the total of his periods of residence in Australia in excess of 10 years. Residence in New Zealand or the United Kingdom may be treated as residence in Australia. Certain absences do not affect eligibility.

Aboriginals, other than those who are nomadic or primitive, are eligible for age and invalid pensions on the same conditions as other members of the community.

A pension is not payable to:—an alien; a person who has deprived himself of property or income in order to qualify for a pension; a person whose annual rate of income (including pension) is £455 (£910 for a married couple) or more; a person who owns property apart from his permanent home and other exempt property, valued at £4,750 or more (£9,500 for a married couple). A pensioner with dependent children may, in certain circumstances, have additional income of 10 shillings a week for each child under 16 years of age.

Since 5th October, 1961, the maximum rate of pension has been £273 per annum (£5 5s. a week). The wife of an invalid pensioner (or an age pensioner who is permanently incapacitated for work or permanently blind) may be granted a wife's allowance of not more than £123 10s. per annum (£2 7s. 6d. a week). A child's allowance of £39 per annum (15s. a week) is also paid to an invalid pensioner for the first child under 16 years of age. The pension is increased, subject to the means test, by £26 per annum (10s. a week) for each other child under 16 years. Supplementary assistance of £26 per annum (10s. a week) is payable to single pensioners and to married pensioners whose spouses do not receive pension or allowance, if the pensioner pays rent and is considered to be entirely dependent on his pension. At 30th June, 1962, 524,794 age pensioners (88 per cent. of all age pensioners) and 90,576 invalid pensioners (93 per cent. of all invalid pensioners) were receiving the maximum pension.

If a pensioner is an inmate of a benevolent home, £1 17s. a week of his pension is paid to him. The rest is paid to the home for his maintenance. The balance is not paid to the home if the patient is in an infirmary ward, as payments under the Commonwealth Hospital Benefit Scheme are made in that case.

Age and invalid pensions (other than invalid pensions paid to blind persons) and allowances paid to wives of invalid pensioners (but not the child's allowance of 15s. a week) are subject to a means test which applies to income and to property. From March, 1961, the means tests previously applied separately on income and property were merged into one composite means test. The pension payable depends on the claimant's *means as assessed*. These consist of his annual rate of income plus a property component equal to £1 for each complete £10 of his net property above £200. A person's *means as assessed* may consist entirely of income, entirely of property component, or of various combinations of income and property component. The pension payable is calculated by deducting from the maximum annual rate of pension the amount by which the *means as assessed* exceeds £182. No pension is payable if the pensioner's property is £4,750 or more.

Certain types of income are excepted. The main exceptions are:—income from property; gifts or allowances from children, parents, brothers or sisters; benefits (other than annuities) from friendly societies; child endowment or other payments for children; Commonwealth health benefits and amounts received from registered benefit organizations.

Certain types of property are disregarded. They include the permanent home of the pensioner, his furniture and personal effects, the surrender value (up to £750) of life insurance policies, the capital value of annuities or contingent interests and the value of any reversionary interests.

For the purposes of the means test, the income and property of a married person are considered to be half the total income and property of the husband and wife unless they are legally separated or in other special circumstances. The pension is then assessed as for a single pensioner.

The following statement shows the rates of pension at 1st July, 1909, and the rates as they have been varied since that date, subject in all cases to income and property qualifications.

## MAXIMUM RATES OF PENSION PAYABLE(a)

Date from which operative	Maximum pension payable		Limit of income (including pension) per annum	Date from which operative	Maximum pension payable		Limit of income (including pension) per annum
	Per week	Per annum			Per week	Per annum	
1st July, 1909 ..	s. d.	£ s.	£ s.	1st April, 1943(c) ..	s. d.	£ s.	£ s.
12th October, 1916 ..	10 0	26 0	52 0	19th August, 1943(c) ..	26 6	68 18	101 8
1st January, 1920 ..	12 6	32 10	58 10	25th November, 1943(c) ..	27 0	70 4	102 14
13th September, 1923 ..	15 0	39 0	65 0	25th November, 1943(e) ..	26 6	68 18	101 8
8th October, 1925 ..	17 6	45 10	78 0	5th July, 1945 ..	27 0	70 4	102 14
23rd July, 1931 ..	20 0	52 0	84 10	13th August, 1946 ..	32 6	84 10	117 0
13th October, 1932(b) ..	17 6	45 10	78 0	3rd July, 1947 ..	32 6	84 10	136 10
26th October, 1933 ..	15 0	39 0	71 10	21st October, 1948 ..	37 6	97 10	149 10
4th July, 1935(c) ..	17 6	45 10	78 0	2nd November, 1950 ..	42 6	110 10	188 10
24th September, 1936 ..	18 0	46 16	79 6	1st November, 1951 ..	50 0	130 0	208 0
9th September, 1937 ..	19 0	49 8	81 18	2nd October, 1952 ..	60 0	156 0	234 0
26th December, 1940 ..	20 0	52 0	84 10	29th October, 1953 ..	67 6	175 10	253 10
3rd April, 1941(c) ..	21 0	54 12	87 2	14th October, 1954 ..	70 0	182 0	286 0
11th December, 1941 ..	21 6	55 18	88 8	27th October, 1955 ..	70 0	182 0	286 0
2nd April, 1942(c) ..	23 6	61 2	93 12	24th October, 1957 ..	80 0	208 0	390 0
2nd April, 1942(d) ..	24 0	62 8	94 18	8th October, 1959 ..	87 6	227 10	409 10
1st October, 1942(c) ..	25 0	65 0	97 10	6th October, 1960 ..	95 0	247 0	429 0
7th January, 1943(c) ..	25 6	66 6	98 16	5th October, 1961 ..	100 0	260 0	442 0
	26 0	67 12	100 2		105 0	273 0	455 0

(a) Excludes amounts payable for wives and children of invalid pensioners and supplementary assistance.

(b) Additional pension of £6 10s. per annum (2s. 6d. a week) was payable to a pensioner with no income. Pensioners with income of less than 2s. 6d. a week were paid additional pension of 2s. 6d. less the amount of income.

(c) Variation according to change in retail price index number.

(d) Increase paid on 9th July, 1942, retrospective to 2nd April, 1942.

(e) Rate restored to £70 4s. per annum under National Security (Supplementary) Regulations 112A—Statutory Rule 315 of 1943.

NOTE.—Provision for variations according to retail price index numbers was repealed on 6th April, 1944.

The number of age pensioners at 30th June, 1962, was 594,012 of whom 185,583 (or 31 per cent.) were males and 408,429 (or 69 per cent.) were females. This was an increase of 31,222 for the year.

During 1961–62, 71,234 age pension claims were granted and 42,302 pensions expired through cancellations and deaths. Of these, deaths accounted for 35,346.

The recorded ages of the 71,234 persons (27,583 males and 43,651 females) to whom age pensions were granted during the year 1961–62 ranged from 10,666 at age 60 to 15 who were over 97; 50,720 were in the 60–69 age-group. The conjugal condition of the new pensioners was as follows:—Males—single, 3,170; married, 20,001; widowed, 4,016; and divorced, 396; Females—single, 5,656; married, 23,461; widowed, 13,601; and divorced, 933.

The number of invalid pensioners at 30th June, 1962, was 97,246 of whom 52,168 (or 54 per cent.) were males and 45,078 (or 46 per cent.) were females. During 1961–62, 18,177 invalid pension claims were granted, 7,156 pensions ceased through cancellation or death, and 2,245 invalid pensioners were transferred to the age pension list.

The recorded ages of the 18,177 persons (11,249 males and 6,928 females) to whom invalid pensions were granted during 1961–62 were as follows:—1,623 (9 per cent.) were in the 16–19 years age-group; 3,112 (17 per cent.) were in the 20–44 years age-group; 8,735 (48 per cent.) were in the 45–59 years age-group; 3,882 (21 per cent.) were in the 60–64 years age-group; and 825 (5 per cent.) were over 65 years of age.

The conjugal condition of persons to whom invalid pensions were granted during the year was as follows:—Males—single, 3,719; married, 6,541; widowed, 675; and divorced, 314; Females—single, 2,338; married, 3,268; widowed, 1,022; and divorced, 300.

The following table shows the number of pensions in force at 30th June, 1962, in each State and Territory.

## AGE AND INVALID PENSIONS, 30th JUNE, 1962

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Age Pensions in force—									
Males .. ..	73,360	45,315	31,856	16,700	12,061	5,548	507	236	185,583
Females .. ..	160,922	107,218	61,801	38,313	27,043	11,974	562	596	408,429
Persons .. ..	234,282	152,533	93,657	55,013	39,104	17,522	1,069	832	594,012
Invalid Pensions in force—									
Males .. ..	21,629	11,629	8,202	4,181	4,399	1,822	225	81	52,168
Females .. ..	20,103	9,890	6,448	3,479	3,427	1,477	154	100	45,078
Persons .. ..	41,732	21,519	14,650	7,660	7,826	3,299	379	181	97,246

The sum disbursed in age and invalid pensions in 1961–62, including the amount paid to homes for the maintenance of pensioners and allowances to wives of invalid pensioners, represented an expenditure of £16 19s. 11d. per head of population as compared with £15 4s. in 1960–61.

The following table gives details of age and invalid pensions for the years 1957–58 to 1961–62.

## AGE AND INVALID PENSIONS: SUMMARY, AUSTRALIA

Year	Pensioners at end of year				Total payments (c)	Average weekly pension as at 30th June		
	Age		Invalid	Total (b)		Age	Invalid	Age and Invalid combined
	No.	Rate (a)						
1957-58 ..	(d) 496,757	482	No. (d) 77,451	No. 574,208	£ 121,577,042	s. d. 83 5	s. d. 85 10	s. d. 83 9
1958-59 ..	513,789	490	83,853	597,642	129,571,447	83 4	86 8	83 10
1959-60 ..	(e) 538,022	501	(e) 80,816	618,838	147,005,341	90 3	94 8	90 10
1960-61 ..	562,790	510	88,642	651,432	157,925,892	97 10	100 6	98 2
1961-62 ..	594,012	529	97,246	691,258	180,244,590	101 11	105 3	102 5

(a) Number of pensioners per 1,000 persons of pensionable age (males aged 65 years and over and females aged 60 years and over). (b) Includes age and invalid pensioners in benevolent homes. (c) Includes allowances and supplementary assistance. (d) On 30th June, 1958, 15,205 invalid pensioners in New South Wales were transferred to their correct designation of age pensioners. (e) On 30th June, 1960, a number of invalid pensioners were transferred to their correct designation of age pensioners as follows:—Victoria, 4,843; Queensland, 4,908; and Western Australia, 486.

## § 3. Child Endowment

A person who is resident in Australia and has the custody, care and control of one or more children under the age of 16 years, or an approved institution of which children are inmates, is qualified to receive an endowment in respect of each child under 16. There are provisions to meet cases of families divided because of divorce, separation, unemployment or death of a parent. There is no means test.

Twelve months' residence in Australia is required if the claimant and the child were not born here, but this requirement is waived if the Department of Social Services is satisfied that they are likely to remain in Australia permanently. Where the child's father is not a British subject, endowment is payable if the child was born in Australia, if the mother is a British subject, or if the Department is satisfied that the child is likely to remain permanently in Australia.

Under certain conditions, endowment may be paid to Australians who are temporarily absent overseas. Endowment is payable to aboriginals unless they are nomadic or primitive.

From 1st July, 1941, the rate of endowment was 5s. a week for each child in excess of one in a family, and for each child under 16 in an approved institution. The rate was increased to 7s. 6d. a week in June, 1945, and to 10s. a week in November, 1948. Since June, 1950, the rates of endowment have been 5s. a week for the first child in a family, 10s. a week for each other child in a family, and 10s. a week for each child in an institution.

The number of families receiving child endowment at 30th June, 1962, was 1,523,074, an increase of 21,894 or 1.5 per cent. during the year. The following table shows, for each State and Territory, the number of claims for child endowment in force and the number of endowed children at 30th June, 1962.

#### CHILD ENDOWMENT: CLAIMS AND ENDOWED CHILDREN, 30th JUNE, 1962

State or Territory	Family groups			Institutions		Total endowed children
	Claims in force	Endowed children		Number	Endowed child inmates	
		Number	Average number per claim			
New South Wales	566,102	1,218,517	2.15	130	6,665	1,225,182
Victoria ..	417,482	921,582	2.21	119	4,627	926,209
Queensland ..	215,496	508,823	2.36	56	2,884	511,707
South Australia ..	144,375	323,944	2.24	53	1,612	325,556
Western Australia	112,006	262,646	2.34	69	3,421	266,067
Tasmania ..	53,050	126,634	2.39	18	381	127,015
Northern Territory	4,703	10,819	2.30	34	5,095	15,914
Australian Capital Territory ..	9,603	21,959	2.29	..	..	21,959
Abroad ..	257	525	2.04	..	..	525
Total ..	1,523,074	3,395,449	2.23	479	24,685	3,420,134

The following table shows, as at 30th June, 1962, the number of claims in force and the number of endowed children, classified according to the number of endowed children in the family group. The families included in the table are not necessarily made up entirely of the children of one marriage, but may include step-children, foster children, adopted children, and any other children under the custody, care and control of the claimant.

#### CHILD ENDOWMENT: ENDOWED CHILDREN IN FAMILY GROUPS, 30th JUNE, 1962

Number of endowed children in family group			Claims in force	Endowed children	Number of endowed children in family group			Claims in force	Endowed children
1	..	..	525,087	525,087	9	..	..	1,331	11,979
2	..	..	493,031	986,062	10	..	..	444	4,440
3	..	..	282,059	846,177	11	..	..	147	1,617
4	..	..	134,628	538,512	12	..	..	60	720
5	..	..	52,602	263,010	13	..	..	9	117
6	..	..	21,698	130,188	14 and over	..	..	8	134
7	..	..	8,354	58,478					
8	..	..	3,616	28,928					
					Total	..	..	1,523,074	3,395,449

The following table shows the annual liability in respect of child endowment at 30th June, 1962, and the actual expenditure thereon for the year 1961-62 in each State and Territory.



**CHILD ENDOWMENT: LIABILITY AND EXPENDITURE, 1961-62**  
(£)

State or Territory	Annual liability at 30th June, 1962			Total payments to endowees and institutions during 1961-62
	Family groups	Institutions	Total	
New South Wales ..	24,322,116	173,290	24,495,406	23,617,265
Victoria ..	18,533,866	120,302	18,654,168	18,020,653
Queensland ..	10,427,950	74,984	10,502,934	10,085,376
South Australia ..	6,545,669	41,912	6,587,581	6,335,522
Western Australia ..	5,372,718	88,946	5,461,664	5,102,478
Tasmania ..	2,602,834	9,906	2,612,740	2,496,713
Northern Territory ..	220,155	132,470	352,625	278,462
Australian Capital Territory ..	446,095	..	446,095	416,488
Abroad ..	10,309	..	10,309	24,671
<b>Total ..</b>	<b>68,481,712</b>	<b>641,810</b>	<b>69,123,522</b>	<b>66,377,628</b>

The following table shows, for Australia, the number of claims, the number of endowed children and the annual liability at 30th June for each of the years from 1958 to 1962 and the actual expenditure for the years 1957-58 to 1961-62.

**CHILD ENDOWMENT: SUMMARY, AUSTRALIA**

At 30th June—	Family group claims	Institutions	Endowed children	Annual liability for endowment (a)	Total payments (a)(b)
				£	£
1958 ..	1,415,378	415	3,073,945	61,522,656	58,733,561
1959 ..	1,451,516	421	3,171,823	63,597,690	(c) 67,539,615
1960 ..	1,476,835	443	3,252,413	65,363,883	62,531,977
1961 ..	1,501,180	465	3,340,302	67,332,512	(d) 74,302,614
1962 ..	1,523,074	479	3,420,134	69,123,522	66,377,628

(a) A number of endowments are paid every twelve weeks. During two years out of every three, there are four such payments, but every third year there are five. Figures for annual liability, therefore, reflect trends in expenditure on child endowment more accurately than do figures for payments.  
 (b) Year ended 30th June, (c) Expenditure for this year includes five twelve-weekly payments.  
 (d) Endowment payable on 4th July, 1961, to the credit of bank accounts and in cash at post offices was brought to account in 1960-61.

#### § 4. Commonwealth Rehabilitation Service

The Commonwealth Rehabilitation Service has been set up to help persons who are unable to work because of physical handicap, or who have had to give up their employment because of sickness or injury. It helps disabled persons to reach their maximum physical fitness and to prepare for suitable employment. They are given suitable treatment and training, the cases selected being those in which the person's disability is remediable and there are reasonable prospects of his engaging in a suitable vocation within three years after the commencement of treatment or training.

The service is available to invalid and widow pensioners, persons receiving unemployment, sickness or special benefits, persons receiving tuberculosis allowances and persons aged 14 or 15 who, without treatment and training, would be likely to qualify for an invalid pension on reaching the age of 16 years. During treatment, payment of pension or benefit continues. When vocational training begins, the pension or benefit

is suspended and a rehabilitation allowance, together with a training allowance of £1 10s. a week, is paid instead. With an invalid pensioner, or a sickness, unemployment or special beneficiary, this is equivalent to and calculated in the same manner as an invalid pension. In the case of a widow pensioner, the rate is the same as that of the widow's pension.

Living-away-from-home allowances are paid where necessary. Fares and living expenses (including those of an attendant where required) incurred in connexion with treatment, training or attendance for an interview or for medical examination may also be paid. A person receiving treatment or training may be provided, free of charge, with necessary artificial replacements, surgical aids and appliances. He may also be provided with books, equipment and tools of trade, costing not more than £40. If these are retained by him, he is required to pay the cost, but payments may be made by small instalments after he has commenced employment.

If the treatment or vocational training does not result in the trainee being able to engage in employment, he receives the pension or benefit to which he is entitled.

Disabled persons who cannot qualify for the free service may pay for rehabilitation themselves, or they may be sponsored by governmental or private organizations. Rehabilitation allowances, training allowances, living-away-from-home allowances and other allowances are not payable in these cases. Books, tools, etc., are available on a repayment basis.

The numbers of persons receiving benefits who were examined, accepted, trained and placed in employment during the year 1961-62 are shown in the following table.

#### COMMONWEALTH REHABILITATION SERVICE: AUSTRALIA, 1961-62

Type	Examined	Accepted	Completed training	Placed in employment	
				After training	Without training
Invalid pensioners .. ..	10,224	222	79	52	61
Widow pensioners .. ..	46	2	..	..	..
Unemployment and sickness beneficiaries .. ..	9,612	888	182	163	519
Special beneficiaries .. ..	1	..	1	1	..
Recipients of tuberculosis allowance	408	54	37	43	11
Persons aged 14-15 years ..	188	60	20	17	29
Persons provided with rehabilitation on payment of the cost ..	138	92	5	4	73
<b>Total .. ..</b>	<b>20,617</b>	<b>1,318</b>	<b>324</b>	<b>280</b>	<b>693</b>

#### § 5. Funeral Benefits

A funeral benefit of up to £10 is payable to the person who has paid, or is liable to pay the cost of the funeral of an age or invalid pensioner or of a claimant who, but for his death, would have been granted an age or invalid pension, or of a person who at the time of his death was receiving, or was a claimant for, a tuberculosis allowance, if he would otherwise have been qualified to receive an age or invalid pension. Where the cost of the funeral has been partly met by payment from a contributory funeral benefit fund of an organization other than a friendly society, funeral benefit is payable to the extent of the amount (not above £10) by which the cost of the funeral exceeded the amount paid from the fund.

The following table shows the number of funeral benefits which were granted in each State and Territory in the years 1957-58 to 1961-62.

## FUNERAL BENEFITS GRANTED: AUSTRALIA

(Number)

State or Territory	1957-58	1958-59	1959-60	1960-61	1961-62
New South Wales .. ..	12,895	14,092	14,764	15,019	15,228
Victoria .. ..	8,740	9,290	9,069	9,200	9,702
Queensland .. ..	4,565	4,880	4,891	5,523	6,000
South Australia .. ..	2,802	3,170	3,141	3,192	3,103
Western Australia .. ..	2,358	2,352	2,448	2,654	2,605
Tasmania .. ..	1,097	1,111	1,100	1,100	1,174
Northern Territory .. ..	6	8	3	7	11
Australian Capital Territory ..	33	58	49	54	66
<b>Australia .. ..</b>	<b>32,496</b>	<b>34,961</b>	<b>35,465</b>	<b>36,749</b>	<b>37,889</b>

## § 6. Maternity Allowances

Maternity allowances are paid to provide financial assistance towards the expenses associated with the birth of children and are additional to the benefits provided under the Commonwealth hospital benefits scheme. They are not subject to a means test.

The allowance is £15 if the mother has no other children, £16 if she has one or two other children and £17 10s. if she has three or more other children under the age of 16 years. The amount is increased by £5 for each additional child born at a birth. An advance payment of £10 on account of a maternity allowance may be made four weeks before the expected date of birth. The balance is payable immediately after the birth. Payment may be made in respect of the birth of a still-born child, or a child which lives for less than twelve hours, if the child had developed for at least 5½ months.

A maternity allowance is payable to a woman who, at the date of giving birth to a child, is residing in Australia, is temporarily abroad, or is on board a ship proceeding from a port in Australia or an Australian Territory to another port in Australia or another Australian Territory, or on board a ship proceeding to Australia, provided she receives no maternity benefit from the country from which she came. An alien mother may receive the allowance if she or her husband resided in Australia for at least twelve months immediately prior to the birth of the child, or if she is likely to remain in Australia. Aborigines, other than those who are nomadic or primitive, are eligible for maternity allowances on the same conditions as other members of the community.

The following table gives details of the amount paid in each State for the years 1957-58 to 1961-62.

## MATERNITY ALLOWANCES: AMOUNT PAID IN EACH STATE

(£'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Abroad	Total
1957-58.. ..	1,281	969	547	323	271	138	11	18	2	3,560
1958-59.. ..	1,266	1,020	546	328	267	139	11	20	2	3,599
1959-60.. ..	1,277	1,008	575	337	275	143	12	21	4	3,652
1960-61.. ..	1,399	1,069	590	359	284	148	20	24	5	3,898
1961-62.. ..	1,442	1,057	589	344	279	145	23	24	5	3,908

The following table shows the number of maternity allowance claims paid in each State or Territory during the years 1957-58 to 1961-62.

### MATERNITY ALLOWANCES: CLAIMS PAID IN EACH STATE

(Number)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Abroad	Total
1957-58..	79,220	60,666	34,000	20,001	16,829	8,509	666	1,137	121	221,149
1958-59..	80,289	63,428	34,266	20,541	16,594	8,608	682	1,276	95	225,779
1959-60..	81,241	62,853	35,515	21,443	17,012	8,985	767	1,311	262	229,389
1960-61..	85,751	66,511	35,587	21,774	17,648	9,077	1,215	1,511	310	239,384
1961-62..	87,659	65,847	36,339	21,328	17,366	8,942	1,398	1,662	300	240,841

The following table shows the number of claims paid in each State at the several rates of maternity allowances during the year 1961-62.

### MATERNITY ALLOWANCES: CLAIMS PAID AT EACH RATE, 1961-62

(Number)

State or Territory	Single births			Multiple births								Total claims paid
	£15	£16	£17 10s.	Twins				Triplets			Quad-ruplets	
				£20	£21	£22 10s.	£25	£26	£27 10s.	£31		
New South Wales ..	28,055	40,770	17,912	231	457	226	2	5	1	..	87,659	
Victoria ..	20,909	30,060	14,136	202	335	193	2	5	5	..	65,847	
Queensland ..	10,237	15,990	9,720	85	178	126	1	1	1	..	36,339	
South Australia ..	6,271	9,976	4,823	69	121	68	..	..	..	..	21,328	
Western Australia ..	5,060	8,040	4,112	34	85	34	..	1	..	..	17,366	
Tasmania ..	2,532	3,952	2,345	33	46	33	..	1	..	..	8,942	
Northern Territory	467	521	390	7	7	6	..	..	..	..	1,398	
Australian Capital Territory ..	511	778	353	3	13	4	..	..	..	..	1,662	
Abroad ..	85	160	50	..	4	1	..	..	..	..	300	
Total ..	74,127	110,247	53,841	664	1,246	691	5	13	7	..	240,841	

## § 7. Unemployment, Sickness and Special Benefits

Unemployment and sickness benefits are paid to men over 16 and under 65 years of age, and women over 16 and under 60 years of age, who are unemployed or who are temporarily incapacitated for work and thereby suffer loss of income. They must have been living in Australia during the preceding twelve months or be likely to remain permanently in Australia. A person receiving an age, invalid or widow's pension, or a service pension (as distinct from a war pension) under the *Repatriation Act*, or a tuberculosis allowance, is ineligible to receive a benefit.

To qualify for an unemployment benefit, a person must establish that he is unemployed and that his unemployment is not due to his being a direct participant in a strike, that he is capable and willing to undertake suitable work, and that he has taken reasonable steps to obtain such work. Registration with the local Commonwealth District Employment Office is necessary.

To qualify for a sickness benefit, a person must establish that he is temporarily incapacitated for work because of sickness or accident and that he has thereby suffered a loss of salary, wages or other income.

A married woman is not eligible to receive a sickness benefit if it is reasonably possible for her husband to maintain her. Where her husband is able to maintain her only partially, a benefit may be paid at such rate as is considered reasonable in the circumstances. In exceptional cases, a married woman may qualify for an unemployment benefit in her own right.

Aboriginals, other than those who are nomadic or primitive, are eligible for these benefits on the same conditions as other members of the community.

Rates of benefit were increased as from 1st March, 1962. The maximum weekly rates of benefit payable and permissible income in respect of benefit periods which commenced on or after 1st March, 1962, are as follows.

Age and marital status of claimant	Maximum weekly rates			Permissible weekly income		
	£	s.	d.	£	s.	d.
Unmarried person under 18 years of age .. .. .	1	15	0	1	0	0
Unmarried person 18-20 years of age .. .. .	2	7	6	1	0	0
All others .. .. .	4	2	6	2	0	0

An additional benefit of £3 a week may be paid for a dependent spouse and 15s. a week for each dependent child under 16 years of age if resident in Australia. Prior to March, 1962, additional benefit was paid for only one dependent child under 16 years. Additional benefit, at the same rate as that for a dependent spouse, may be paid where a woman is keeping house for a claimant who has one or more children under 16 years of age in his care. It may be granted only if no such benefit is payable for his wife and the housekeeper is substantially dependent on him but not employed by him.

The weekly rate of benefit is reduced by the amount by which a beneficiary's other income exceeds the amount shown in the relevant line of the final column in the table above. For unemployment benefit purposes, the income of the spouse is also taken into account, unless the claimant and his spouse are permanently separated. For sickness benefit purposes, the income from an approved friendly society or other similar approved body in respect of the incapacity for which sickness benefit is payable is disregarded. "Income" does not include child endowment, or other payments for children, Commonwealth hospital and pharmaceutical benefits, or a tuberculosis allowance or an amount paid in reimbursement of medical, dental or similar expenses paid. There is no means test on property.

The amount of compensation, damages or similar payment, or war pension, if paid in respect of the same incapacity as that for which sickness benefit is claimed, is deducted from the sickness benefit. If not paid in respect of the same incapacity, compensation is regarded as income and war pension is ignored.

There is a waiting period of seven days for which unemployment or sickness benefit is not payable. Unemployment and sickness beneficiaries are eligible to participate in the Commonwealth Rehabilitation Service under the same conditions as invalid pensioners.

A special benefit may be granted to a person not qualified for unemployment or sickness benefit who is not receiving an age, invalid or widow's pension or a service pension, if because of age, physical or mental disability or domestic circumstances, or for any other reason, he is unable to earn a sufficient livelihood for himself and his dependants. Special benefits are also paid to migrants who are in reception centres and are awaiting their first placement in employment in Australia. During this time, they receive a short instruction in English and in Australian conditions to facilitate their assimilation into the community and employment.

During the year 1961-62, special benefits were granted to 3,932 migrants at a cost of £92,144.

The following table shows the number admitted to benefit during 1961-62, the number of persons on benefit at 30th June, 1962, and the amount paid for each benefit during 1961-62.

## UNEMPLOYMENT, SICKNESS AND SPECIAL BENEFITS, 1961-62

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Persons admitted to benefit—									
Unemployment—									
Males ..	74,298	58,555	52,475	16,795	12,022	6,462	425	617	221,649
Females ..	20,782	13,646	12,250	5,039	3,503	1,811	68	188	57,287
Persons ..	95,080	72,201	64,725	21,834	15,525	8,273	493	805	278,936
Sickness—									
Males ..	17,859	10,621	8,764	4,092	4,335	1,589	117	164	47,541
Females ..	6,485	4,212	2,573	1,215	1,077	411	26	46	16,045
Persons ..	24,344	14,833	11,337	5,307	5,412	2,000	143	210	63,586
Special—									
Ordinary—									
Males ..	372	250	469	101	57	48	3	2	1,302
Females ..	465	1,362	184	71	100	45	..	5	2,232
Persons ..	837	1,612	653	172	157	93	3	7	3,534
Migrants—									
Persons ..	723	2,961	..	248	..	..	..	..	3,932
Total—									
Males(a) ..	92,529	69,426	61,708	20,988	16,414	8,099	545	783	270,492
Females(a) ..	27,732	19,220	15,007	6,325	4,680	2,267	94	239	75,564
Persons(b) ..	120,984	91,607	76,715	27,361	21,094	10,366	639	1,022	349,988
Persons on benefit at end of year—									
Unemployment—									
Males ..	11,511	10,794	5,138	1,747	1,824	1,343	14	30	32,401
Females ..	5,456	3,544	2,294	1,310	843	435	3	38	13,923
Persons ..	16,967	14,338	7,432	3,057	2,667	1,778	17	68	46,324
Sickness—									
Males ..	3,091	1,740	1,224	576	529	234	13	16	7,423
Females ..	1,187	739	445	210	185	70	2	9	2,847
Persons ..	4,278	2,479	1,669	786	714	304	15	25	10,270
Special—									
Ordinary—									
Males ..	167	153	79	38	27	14	2	..	480
Females ..	506	872	253	99	100	81	..	..	1,911
Persons ..	673	1,025	332	137	127	95	2	..	2,391
Migrants—									
Persons ..	19	98	..	1	..	..	..	..	118
Total—									
Males(a) ..	14,769	12,687	6,441	2,361	2,380	1,591	29	46	40,204
Females(a) ..	7,149	5,155	2,992	1,619	1,128	586	5	47	18,681
Persons(b) ..	21,937	17,940	9,433	3,981	3,508	2,177	34	93	59,103
Benefits paid—									
Unemployment £	4,402,094	3,603,254	2,636,105	892,830	726,082	347,870	6,666	21,865	12,636,766
Sickness £	1,104,059	646,820	428,968	198,449	190,706	81,403	4,340	10,177	2,664,922
Special(b) £	166,238	278,524	78,564	33,221	26,705	19,124	137	678	603,191
Total Benefits Paid(b) £	5,672,391	4,528,598	3,143,637	1,124,500	943,493	448,397	11,143	32,720	15,904,879

(a) Excludes migrants in reception and training centres.

(b) Includes migrants in reception and training centres.

The following table shows the number of persons who were admitted to benefit, the average number receiving benefit at the end of each week and the amount paid for each benefit for Australia during each of the years 1957-58 to 1961-62.

## UNEMPLOYMENT, SICKNESS AND SPECIAL BENEFITS: SUMMARY, AUSTRALIA

Year	Number admitted to benefit			Average number of persons on benefit at end of each week			Amount paid in benefits		
	Un-employment	Sick-ness	Special (a)	Un-employment	Sick-ness	Special (a)	Un-employment	Sick-ness	Special (b)
1957-58 ..	143,877	54,517	17,886	23,847	7,262	2,812	£ 4,919,775	£ 1,857,263	£ 553,706
1958-59 ..	145,016	58,680	13,701	27,669	8,242	2,596	5,959,248	2,196,527	496,535
1959-60 ..	108,224	59,159	14,590	21,374	8,755	2,650	4,504,504	2,238,281	510,163
1960-61 ..	161,113	58,184	14,001	21,569	8,513	2,829	4,468,532	2,151,479	519,907
1961-62 ..	278,936	63,586	7,466	52,950	9,286	2,867	12,636,766	2,664,922	603,191

(a) Includes migrants in reception and training centres.

(b) Includes payments to migrants in reception and training centres.

## § 8. Widows' Pensions

Widows' pensions are payable according to the following classes. The rates shown have been in operation since 10th October, 1961.

*Class "A".* A widow who has the custody, care and control of one or more children under the age of 16 years—£286 per annum (£5 10s. a week) plus £39 per annum (15s. a week) for each child after the first in her custody, care and control.

*Class "B".* A widow who has no children under 16 years of age in her custody, care and control, and who is not less than 50 years of age or who, after having attained the age of 45 years, ceased to receive a Class "A" widow's pension because she no longer had the custody, care and control of a child—£240 10s. per annum (£4 12s. 6d. a week).

*Class "C".* A widow who is under 50 years of age and has no children under the age of 16 years in her custody, care and control, but is in necessitous circumstances within the 26 weeks after the death of her husband—£4 12s. 6d. a week for not more than 26 weeks after the death of her husband. If the widow is pregnant, this period may be extended until the child's birth. She may then become eligible for a Class "A" widow's pension.

Widow pensioners may receive supplementary assistance of £26 per annum (10s. a week) if they pay rent and are considered to be dependent entirely on their pensions.

For classes "A" and "B", the term "widow" includes a deserted wife, a divorcee, a woman whose husband has been imprisoned for at least six months, and a woman whose husband is in a mental hospital. Certain dependent females also may qualify for "A", "B" or "C" Class pensions.

The residential qualification is five years' continuous residence in Australia immediately prior to the date of lodgment of the claim, but this period may be reduced to one year if the widow and her husband were living permanently in Australia when he died. Certain absences are ignored.

A widow's pension is not payable to an alien, a woman receiving an age or invalid pension, a tuberculosis allowance, or a war widow's pension, a woman who has deprived herself of property or income in order to qualify for a pension, or a deserted wife or a divorcee who has not taken reasonable action to obtain maintenance from her husband or former husband. Aborigines, other than those who are nomadic or primitive, are eligible for widows' pensions on the same conditions as other members of the community.

Widows' pensions are subject to a means test on income and property. The pension payable depends on the claimant's *means as assessed*. These consist of her annual rate of income together with a property component equal to £1 for every complete £10 by which the value of her property is in excess of a stipulated sum. In the case of a Class "B" widow, £200 of property is exempt. A Class "A" widow has a basic exemption of £1,000 when the value of her property exceeds £2,250, but no property component is calculated where she has property of no more than £2,250 in value. A Class "A" pension is not payable where a widow has property valued at £5,680 or more; no Class "B" pension is payable where property is £4,430 or more. There is no specific means test for the Class "C" pension, which is paid only where it is evident that a widow has insufficient means of support. The types of income and property disregarded for means test purposes are the same as for age and invalid pensions.

The pension payable to a Class "A" widow may be continued until her child reaches the age of 18 years if the child continues with full-time education at a school or university, is still dependent on the widow and is not in employment.

The number of widows' pensions by class, current at 30th June, 1962, was as follows:—Class "A", 24,584; Class "B", 32,157; Class "C", 95; total, 56,836.

The amount paid in pensions during 1961-62 was £15,094,520. The following table shows details of widows' pensions paid in each State and Territory in the year 1961-62.

**WIDOWS' PENSIONS AT 30th JUNE, 1962**

State or Territory	Pensions current			Average weekly pension	Amount paid in pensions during 1961-62
	Class "A"	All classes	Total per 10,000 of population		
				s. d.	£
New South Wales .. ..	8,937	21,187	53	104 2	5,728,971
Victoria .. ..	5,845	14,251	48	104 3	3,680,477
Queensland .. ..	4,553	9,452	61	105 8	2,516,160
South Australia .. ..	2,220	5,218	53	104 2	1,377,357
Western Australia .. ..	1,905	4,570	61	102 8	1,185,604
Tasmania .. ..	998	1,912	54	106 4	518,474
Northern Territory .. ..	59	117	42	103 10	29,627
Australian Capital Territory ..	67	129	20	107 0	32,648
Abroad .. ..	(a)	(a)	..	..	25,202
<b>Total .. ..</b>	<b>24,584</b>	<b>56,836</b>	<b>53</b>	<b>104 5</b>	<b>15,094,520</b>

(a) Included in figures for State in which pensioner is permanently domiciled.

**§ 9. Reciprocal Agreements with Other Countries**

1. **New Zealand.**—An agreement between the governments of Australia and New Zealand for reciprocity in social services came into operation on 1st July, 1949.

The reciprocal arrangements cover age and invalid pensions, widows' pensions, child endowment and unemployment and sickness benefits, and apply to both permanent and temporary changes of residence.

Residence in one country counts as residence in the other country in relation to entitlement to benefits in which a residential qualification applies.

Persons from one country taking up permanent residence in the other country become eligible for any of the specified benefits of the new country under the same conditions (with one or two exceptions) as apply to citizens of that country.

Persons in receipt of any of the specified benefits in one country may continue to receive those benefits while temporarily absent in the other country.

2. **Britain.**—A new reciprocal agreement on social services between Britain and Australia came into operation on 1st April, 1958, replacing the original agreement which operated from 7th January, 1954.

Under this agreement, residence in one country now counts as residence in the other country as the basis for entitlement to benefits in which a residential qualification applies.

Australians going to Britain for permanent residence are treated in Britain as if they had been insured under the National Insurance Scheme while in Australia, so that they can qualify for various National Insurance benefits.

There is also provision for the safeguard of social service rights for persons going from one country to the other for temporary residence.



## OTHER SERVICES

## § 1. Benevolent Homes

1. **General.**—Numerous establishments exist for the housing and protection of persons no longer able to provide for themselves. These homes are supported by government and municipal aid, public subscriptions, bequests, etc. In many cases, relatives of poor and afflicted persons contribute to their maintenance.

A satisfactory statistical tabulation of all forms of charitable aid provided by benevolent institutions is difficult because these services differ considerably.

2. **Revenue and Expenditure.**—Details regarding revenue and expenditure for the year 1960-61 are given in the following table.

## BENEVOLENT HOMES: REVENUE AND EXPENDITURE, 1960-61

(£ )

Particulars	N.S.W.(a)	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Australia
<b>Revenue—</b>							
Government aid ..	786,411	1,349,105	642,646	149,216	234,714	391,001	3,553,093
Municipal aid ..	..	823	..	..	..	142,421	143,244
Public subscrip- tions, legacies ..	} 284,016	{ 132,139	21,627	..	4,564	..	}
Fees(b) ..							
Other ..							
		{ 570,151	223,792	1,060	294,713	59,883	1,678,461
		16,633	51,733	3,138	13,710	1,302	
<b>Total</b> ..	<b>1,070,427</b>	<b>2,068,851</b>	<b>939,798</b>	<b>153,414</b>	<b>547,701</b>	<b>594,607</b>	<b>5,374,798</b>
<b>Expenditure—</b>							
Salaries and wages	642,346	1,067,296	490,470	100,324	373,861	301,562	2,975,859
Upkeep and repair of buildings ..	36,730	86,315	12,346	7,759	25,806	11,191	180,147
All other ..	342,304	476,168	399,894	43,316	136,114	139,573	1,537,369
Capital(c) ..	49,047	413,817	95,069	2,015	11,920	142,421	714,289
<b>Total</b> ..	<b>1,070,427</b>	<b>2,043,596</b>	<b>997,779</b>	<b>153,414</b>	<b>547,701</b>	<b>594,747</b>	<b>5,407,664</b>

(a) These figures relate to the two State hospitals and homes only. (b) Includes Commonwealth hospital benefits and age and invalid pension receipts. (c) Includes such items as purchase of land, cost of new buildings and additions to buildings.

3. **The Aged Persons Homes Act.**—*The Aged Persons Homes Act*, which operated from 16th December, 1954, was amended in October, 1957. The purpose of the Act is to encourage the provision of homes in which aged persons may reside in conditions approaching normal domestic life.

To be eligible for assistance under this Act an organization must be:—

- (a) carried on otherwise than for purposes of profit or gain to the individual members; and
- (b) a religious organization, an organization the principal objects or purposes of which are charitable or benevolent, an organization of former members of the defence forces established in every State or a State branch of such an organization, or an organization approved by the Governor-General for the purposes of this Act.

An organization conducted or controlled by, or by persons appointed by, the Government of the Commonwealth or of a State or a local governing body established under the law of a State, is not eligible for assistance under this Act.

The Director-General of Social Services may make a grant of money to an organization as assistance towards meeting the cost of the construction or purchase of a home, including land, to be used permanently for the accommodation of aged persons. The grant is made on a basis of £2 for each £1 raised by the organization, not counting money which the organization received from a governmental body or borrowed. Before a grant is made, the Director-General must be satisfied that the sum of the money expended and the money presently available for expenditure by the organization towards the capital cost of the home, together with the amount of the grant, will be not less than the capital cost of the home. Expenditure by the Commonwealth Government was £837,895 in 1957-58, £1,767,470 in 1958-59, £1,871,748 in 1959-60, £2,153,551 in 1960-61 and £3,472,514 in 1961-62.

## § 2. Orphanages, Industrial Schools, etc.

1. **General.**—The methods of caring for orphans and neglected children differ extensively, some being placed in orphanages and industrial schools, while others are boarded out with their mothers or female relatives or with approved foster-mothers. The children in orphanages and similar institutions may receive, in addition to general education, some craft training. In all cases, employment is found for the children on their discharge from the institution, and they remain for some time under the supervision of the proper authorities. The conditions under which orphans, neglected children and children boarded out live are subject to frequent departmental inspections.

2. **Children under Government Authority.**—The following table shows the expenditure by State Departments during 1960-61 in connexion with children under their control or supervision. The figures refer, in addition to neglected children, to uncontrollable and convicted children who are wards of a government authority, as well as children whose parents obtain assistance from the government without giving up the legal right of custody.

### CHILDREN UNDER GOVERNMENT AUTHORITY: COST OF MAINTENANCE, 1960-61.

(£)

Particulars	N.S.W.	Vic.(a)	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Gross cost of children's relief .. ..	2,343,952	1,605,383	601,242	457,393	275,359	98,244	5,381,573
Receipts from parents' contributions, etc. ..	116,821	50,560	39,262	50,402	30,471	8,834	296,350
<i>Net Cost to State</i>	<i>2,227,131</i>	<i>1,554,823</i>	<i>561,980</i>	<i>406,991</i>	<i>244,888</i>	<i>89,410</i>	<i>5,085,223</i>

(a) Year ended 31st December, 1961.

The total expenditure on children's relief in the foregoing table shows considerable variation between the States, owing to different methods of treating assistance to mothers with dependent children. In South Australia, Western Australia and Tasmania, large amounts have been excluded from the total expenditure on this account, owing to the difficulty of obtaining separate particulars for allowances made in respect of the dependent children only.

## § 3. Protection of Aborigines

For the protection of the aboriginal Australian race, there are institutions, under the supervision of Aborigines Boards, where these people are housed and encouraged to work, the children receiving elementary education. The work is usually carried on at mission stations, but many of the natives are nomadic and receive food and clothing when they call, while others only rarely come near the stations. The aboriginal race is extinct in Tasmania. The expenditure from Consolidated Revenue in 1961-62 was as follows (figures

in brackets are for the year 1960–61:—New South Wales, £280,838 (£250,658); Victoria, £50,000 (£25,000); Queensland, £803,529 (£770,013); South Australia, £524,038 (£428,021); Western Australia, £1,300,443 (£762,294); Northern Territory, £1,011,983 (£965,227); Australian Capital Territory, £4,372 (£5,485); Australia, £3,975,203 (£3,206,698).

#### § 4. Lifesaving

There are two life saving organizations in Australia, the Royal Life Saving Society—Australia, and the Surf Life Saving Association of Australia.

The objects of these organizations are the prevention of death from drowning and other forms of asphyxiation; the education of the general public in methods of life saving and resuscitation of the apparently drowned or asphyxiated; technical education in water safety; the encouragement of swimming and life saving in schools and other organizations; the encouragement of all aspects of swimming and aquatics which would assist in saving lives; and the initiation of research within the field of water safety and lifesaving.

The Royal Life Saving Society operates at lakes, rivers, bay and harbour beaches, and gives instruction to school pupils and members of other bodies throughout Australia except on surf beaches. The Surf Life Saving Association patrols surf beaches.

Numerous certificates and medallions of proficiency in various grades are awarded.

#### § 5. Royal Humane Society

The Royal Humane Society of Australasia has as its main object the granting of awards to all who with bravery, skill and perseverance risk their own lives in saving or attempting to save those of their fellow creatures. The classes of awards are (a) Gold Medal; (b) Silver Medal; (c) Bronze Medal; and (d) Certificate of Merit. The Clarke Medal is awarded for the outstanding case of the year, and the Rupert Wilks Trophy is awarded for the most outstanding bravery by a child under 13 years of age.

#### § 6. The Order of St. John

The Priory in Australia of the Most Venerable Order of the Hospital of St. John of Jerusalem is the governing body of the various activities of the Order which comprises the St. John Ambulance Association, the St. John Ambulance Brigade and the Hospitallers' Clubs in all States and Commonwealth Territories.

Members of the St. John Ambulance Association teach first aid, home nursing, hygiene and child welfare.

Members of the St. John Ambulance Brigade provide first aid at public functions.

The Hospitallers' Clubs in each State undertake the collection of funds for the St. John Ophthalmic Hospital in Jerusalem, and other duties which tend to bring together all persons interested in the work of the order.

The Order of St. John maintains ambulance transport services in some States, acts as an auxiliary to such services in other States, and provides technical reserves for the medical services of the Crown.

The Lifesaving Medal is awarded by the Order as warranted.

#### § 7. Other Charitable Institutions

Owing to the variety of names and functions of other charitable institutions, it has been found impracticable to give detailed particulars. The aid given in kind—food, clothing, tools of trade, etc.—is considerable, whilst the shelter and treatment afforded range from a bed for a night for casual callers in establishments ministering minor charity, to indoor treatment over long periods in those that exist for the relief of the aged and the infirm. The institutions not particularized include homes for the deaf, dumb and blind, infant homes, homes for the destitute and aged poor, industrial colonies, night shelters, crèches, rescue homes for females, auxiliary medical charities, free dispensaries, benevolent societies and nursing systems, ambulance and health societies, boys' brigades, humane and animals' protection societies, prisoners' aid associations, shipwreck relief societies, bushfire, flood and mining accident relief funds.

## CHAPTER XVI

### PUBLIC JUSTICE

NOTE.—In interpreting statistics of public justice, it should be realized that a number of factors affect comparability from State to State and from year to year, e.g.:

- (a) Differences in the jurisdiction of courts;
- (b) Changes in the law in particular States and differences in the laws between States;
- (c) Differences in the methods of compiling the figures (e.g. in respect of persons convicted for more than one offence);
- (d) The attitude to laws such as those connected with liquor, vagrancy, gaming, and traffic offences;
- (e) The strength and distribution of the police force;
- (f) The proportion of various types of crimes reported and solved.

#### § 1. The Australian Legal System

1. **Development of the System.**—The two major factors in the development of the Australian legal system have been its British origin and the Federal Constitution of 1900. When the various parts of Australia were first settled by British colonists, the common law and statutes of England were brought with them by the settlers. When local law-making bodies were established, the law so brought in was gradually modified and augmented by local legislation, but the Imperial Parliament in London also continued to legislate (to a lesser and lesser extent) in respect of Australia. The Federal Constitution of 1900, which is itself an Imperial Act, limited the legislative power of State Parliaments in some respects and created a federal legislature. Since the *Statute of Westminster Adoption Act* 1942, the Imperial Parliament can legislate for Australia only at Australia's request. The sources of Australian law of today are, therefore, found in Commonwealth and State legislation, in some Imperial legislation and in the common law. No significant attempt has been made at codification of the law, but three of the States (Queensland, Western Australia, and Tasmania) have Criminal Codes. However, separate consolidations of the statutes of the Commonwealth and of all States except Western Australia (which has adopted a system of reprinting of individual statutes at intervals) have been brought out from time to time.

There are few constitutional or other legislative guarantees of individual rights and liberties in Australia. These rights are nevertheless protected, because a basic feature of the Australian system is the "rule of law": no act, official or unofficial, however *bona fide* and apparently reasonable, which infringes the liberty or rights of an individual is justifiable unless it is authorized by law, and for any such unlawful act, by whatever authority commanded, the official or other person is personally liable in an action in the ordinary courts. In the case of subordinate legislation, and even in the case of Federal or State Acts, the validity of the law itself may be challenged in the courts. The remedy for the protection of the personal liberty of the individual is the writ of habeas corpus, which requires the person named therein to be produced in the court.

Australian law adheres to the principle that Federal control must in general be exercised by ordinary courts. There is no integrated system of administrative tribunals, but there is

a great variety of such tribunals of various descriptions. The ordinary courts exercise supervision over administrative tribunals either by way of statutory appeal or by the use of prerogative writs of *mandamus*, *prohibition*, or *certiorari*, by which the administrative tribunals can be enjoined to perform a duty or to abstain from excess of jurisdiction, or can have their decisions set aside.

Independence of the judiciary is an essential part of the Australian legal system. Security of tenure of superior court judges is guaranteed, mostly by the Constitutions of the Commonwealth and the States, and they can be removed from office only by resolution of both Houses of Parliament of the Commonwealth or the States, as the case may be, for proven misbehaviour or incapacity. Their independence is further secured by relatively high salaries which, in the case of High Court judges, cannot be reduced during their tenure of office, and liberal (mostly non-contributory) pensions for the judges or their widows.

Judgments given in the courts of any part of Australia can be enforced in any other part of Australia under the *Service and Execution of Process Act* 1901–1958 of the Commonwealth.

**2. State and Territory Courts.**—(i) *Civil jurisdiction.* Lower civil courts (which term includes, for the purposes of this chapter, Magistrates' Courts, Courts of Petty Sessions, Local Courts, Small Debts Courts, Courts of Request and Courts of General Sessions) are usually constituted or presided over by a stipendiary or special magistrate or a commissioner. In some limited instances, justices of the peace may exercise the jurisdiction of the court. Local Courts are sometimes constituted by a Judge. The powers of the magistrates in the various States and Territories are set out in § 2, pages 659–60. In most cases, unless the amount involved is very small, appeal may be made to a higher court against a magistrate's decision. In any case, the Supreme Court has a supervisory power, by means of prerogative writs, to examine whether a lower court has properly exercised its jurisdiction.

In the higher courts (which term includes, for the purposes of this chapter, District Courts, County Courts, and the Supreme Courts), actions are usually tried by a single judge, sitting with or without a jury, from whose judgment appeal lies to the bench of the Supreme Court. In certain cases, the appeal can be carried to the High Court of Australia. Appeals to the Privy Council are discussed below.

(ii) *Criminal jurisdiction.* Criminal courts are of two kinds, namely, courts of summary jurisdiction and higher courts. Courts of summary jurisdiction, usually called Courts of Petty Sessions, may deal summarily with minor offences; higher courts, known as Courts of Sessions, Quarter Sessions or General Sessions (not to be confused with the lower court of civil jurisdiction of that name) and the Supreme Court, hear indictable offences. A court of summary jurisdiction consists of a stipendiary or police magistrate, or two or more justices of the peace; a higher court consists of a judge or chairman, sitting with a jury. The jury finds as to the facts of the case and the judge determines the applicable law and, within the limits of the law, the punishment of the convicted person.

In the case of other than minor offences, a preliminary hearing is held before a stipendiary magistrate or justice of the peace for the purpose of determining whether a *prima facie* case has been made out. If the magistrate or justice of the peace finds that there is a case to answer, the person charged is committed for trial at a higher court. A magistrate or justice of the peace has power to release on bail.

There is an appeal to a higher court from the decision of a court of summary jurisdiction hearing a minor offence, and an appeal from a higher court to the full bench of the Supreme Court, or Court of Criminal Appeal. A further appeal may, with leave, be brought to the High Court of Australia.

**3. Federal Courts.**—The judicial power of the Commonwealth is vested in the High Court of Australia (the Federal Supreme Court), in the Federal courts created by Parliament (the Federal Court of Bankruptcy and the Commonwealth Industrial Court), and in the State courts invested by Parliament with Federal jurisdiction, both civil and criminal. Further particulars regarding the judicial power of the Commonwealth will be found in Chapter III. (§§ 71–73) of the Commonwealth Constitution (*see* p. 16 of this Year Book).

Particulars concerning the Federal Court of Bankruptcy and the High Court of Australia will be found in §§ 4 and 5, respectively, of this chapter. Information regarding the Commonwealth Industrial Court, which was established under the *Conciliation and Arbitration Act 1904-1961*, will be found in Chapter XII. Labour, Wages and Prices (pp.462-3).

4. **Appeal to the Privy Council.**—There is an appeal, by special leave of the Privy Council, from the High Court to the Privy Council. In certain important types of constitutional disputes, involving questions of the powers of the Commonwealth *vis-a-vis* the States, a certificate of the High Court in effect granting leave to appeal is necessary. There is also an appeal from the State Supreme Courts direct to the Privy Council.

## § 2. Lower (Magistrates') Courts

1. **Powers of the Magistrates.**—(i) *New South Wales.* There is no general limit to the powers of the magistrates with regard to offences punishable summarily, their authority depending in each case on the statute which creates the offence and gives them jurisdiction. Except in the case of a very few statutes, and excluding cumulative sentences, the power of sentence is limited to twelve months. Imprisonment in default of fine is regulated by a scale limiting the maximum period according to the sum ordered to be paid, but in no case exceeding twelve months. Actions for debt and damage within certain limits also come within magisterial jurisdiction. In cases of liquidated debts, and damages whether liquidated or unliquidated, the amount is limited to £150 before a court constituted by a stipendiary magistrate. Where the amount claimed exceeds £50, the Court must transfer the action to the District Court when the defendant gives notice that he objects to the action being heard and determined by a Court of Petty Sessions. Magistrates have power to entertain claims of up to £500 under the *Money Lenders and Infants Loans Act 1941*, as amended. The amount in actions of debt before two or more justices of the peace is limited to £30 and in actions of damages it is limited to £10, but may extend to £30 with the consent of the defendant. Outside the Metropolitan Area of Sydney and certain other prescribed districts, one justice of the peace may hear cases of debt, liquidated or unliquidated, or damage, up to £5 or to £30 by consent of parties.

(ii) *Victoria.* The civil jurisdiction of magistrates is restricted to what may be designated ordinary debts, damages for assault, restitution of goods, etc., where the amount in dispute does not exceed £100, and to actions arising out of torts or contracts to the extent of £250. No definite limit is fixed to the powers of the magistrates on the criminal side, and for some offences, sentences of up to two years' imprisonment may be imposed. The proportion of long sentences is, however, comparatively small.

(iii) *Queensland.* Generally speaking, the maximum term of imprisonment which justices can impose is six months, but in certain exceptional cases, such as offences against sections 233, 344 and 445 of the *Criminal Code* (betting houses, aggravated assaults, and unlawfully using animals), sentences of twelve months may be imposed.

There is provision for applying cumulative sentences, but in practice not more than one sentence is generally made cumulative on a previous sentence.

(iv) *South Australia.* The power of special magistrates to impose fines and imprisonment is defined by the special Act creating the offence and conferring jurisdiction. In the case of minor indictable offences which are tried summarily, a maximum penalty of £100 fine or two years' imprisonment is fixed by the *Justices Act 1921-1960*. Magistrates also have power to hear certain civil actions in which the amount claimed is less than £1,250.

(v) *Western Australia.* The powers of magistrates and justices with regard to offences which are tried summarily are governed by the Act creating the offence and giving them jurisdiction. Imprisonment in default of payment of a fine is regulated by a scale limiting the period according to the amount of the fine but not to exceed six months.

The civil jurisdiction of Local Courts is restricted in general to £500. By consent of the parties, any action that might be brought in the Supreme Court may be dealt with in a Local Court. Justices may act in the case of illness or absence of the magistrate.

Magistrates are coroners and justices may be appointed as acting coroners.

Magistrates have appellate jurisdiction under some statutes and in country districts act as *Chairmen of the Session Courts*. They may be appointed as *Commissioners of the Supreme Court*. On the goldfields, the magistrate is also the warden.

(vi) *Tasmania*. Magistrates are empowered to hear and determine in Courts of Petty Sessions all offences when an enactment expressly or by implication provides that the matter is to be determined summarily, or by or before justices, or that any offence is to be punishable upon summary conviction. In addition, stealing and analogous crimes may be heard and determined summarily on the election of the person charged, when the amount involved does not exceed £100.

No general limit is fixed in respect of sentences, the statute creating the offence almost invariably laying down the penalty. Where this is not the case, the *Contravention of Statutes Act* 1889 provides that a fine of £50 may be imposed. Sentences of imprisonment which justices may impose vary with the nature of the offence, with a maximum of two years. The aggregate of terms of cumulative sentences may not exceed two years.

The civil jurisdiction of magistrates is divided into two categories. A Commissioner of the Court of Requests, provided he is a legal practitioner, may hear actions for the recovery of debts and damages not exceeding £250. As Commissioners are invariably police magistrates, this jurisdiction is State-wide. Courts of General Sessions, constituted by at least two justices, exercise similar powers, but the jurisdiction cannot exceed £50. Only one court, that at Currie, King Island, has the maximum jurisdiction, the others being limited to £30.

(vii) *Northern Territory*. Magistrates constituting courts of summary jurisdiction try offences punishable summarily. The punishment that may be imposed depends on the law creating the offence. Where there is no magistrate available, the offence may be tried by two or more justices of the peace or, if all parties consent, by one justice. Proceedings for committal on indictable offences may be heard by either a magistrate or a justice of the peace. Certain minor indictable offences may be tried summarily by a magistrate or two justices of the peace, who may impose a fine up to £100 or imprisonment for up to two years.

A stipendiary magistrate constituting a local court has a civil jurisdiction to hear and determine claims for not more than £1,000. A local court constituted by two justices of the peace has a civil jurisdiction to hear claims up to £50.

(viii) *Australian Capital Territory*. Magistrates have jurisdiction to try an offence which is punishable summarily and also where a person is made liable to a penalty or punishment and no other provision is made for trial. The punishment depends upon the statute which creates the offence. Certain indictable offences of a less serious nature may be tried summarily by a magistrate, who may impose a fine not exceeding £50 or imprisonment for up to one year. Magistrates also hear proceedings for committal on indictable offences. In civil proceedings, magistrates try actions for amounts up to £200. Justices of the peace have no judicial functions.

NOTE.—In interpreting the statistics in the following paragraph, the factors affecting comparability listed at the beginning of this chapter (p. 657) should be borne in mind.

2. **Criminal Proceedings.**—(i) *Cases*. The total numbers of cases dealt with at magistrates' courts in each State and Territory for the years 1957 to 1961 are shown in the following table.

## CASES AT MAGISTRATES' COURTS: OFFENCES CHARGED

State or Territory	1957	1958	1959	1960	1961
New South Wales(a) ..	307,824	323,097	331,195	332,728	345,730
Victoria ..	224,015	270,017	287,622	(a) 268,104	(a) 259,268
Queensland(b) ..	53,611	(a) 62,468	(a) 65,773	(a) 73,804	(a) 79,448
South Australia(a)(b) ..	34,399	36,305	38,003	47,427	59,534
Western Australia(a) ..	59,205	49,945	50,696	50,107	48,220
Tasmania(a) ..	19,120	20,009	21,355	24,047	27,227
Northern Territory ..	(b) 2,615	3,103	3,617	2,958	3,091
Australian Capital Territory ..	1,875	2,197	2,539	3,168	3,305
<b>Australia ..</b>	<b>702,664</b>	<b>767,141</b>	<b>800,800</b>	<b>802,343</b>	<b>825,823</b>

(a) Excludes minor traffic offences settled by payment of fines without court appearance.

(b) Year ended 30th June.

In addition, provision exists in all States for settlement of minor traffic offences by payment of fines without court appearance. The following table shows the number of such offences for the years 1957 to 1961.

## MINOR TRAFFIC OFFENCES SETTLED BY PAYMENT OF FINES(a)

State	1957	1958	1959	1960	1961
New South Wales ..	237,811	315,058	321,157	351,685	370,688
Victoria ..	(b)	(b)	(b)	69,895	113,874
Queensland ..	(b)	18,803	22,701	22,680	24,513
South Australia(c) ..	n.a.	n.a.	145,276	149,241	156,067
Western Australia ..	31,405	36,999	44,973	50,879	44,392
Tasmania ..	9,960	15,022	18,554	25,801	36,745
<b>Total ..</b>	<b>(d) 279,176</b>	<b>(d) 385,882</b>	<b>407,385</b>	<b>520,940</b>	<b>746,279</b>

(a) Without court appearance.

(b) Not applicable.

(c) Year ended 30th June.

(d) Ex-

(ii) *Convictions at Magistrates' Courts.* Of the cases dealt with in Magistrates' Courts in 1961, the following table shows the number in which convictions were made.

## CONVICTIONS AT MAGISTRATES' COURTS, 1961

Class of offence	N.S.W.	Vic.	Qld (a)(b)	S.A. (a)	W.A.	Tas.	N.T.	A.C.T. <sup>1</sup>	Aust.
Against the person ..	3,405	1,998	522	340	411	287	69	99	7,131
Against property ..	27,807	13,935	4,211	3,204	4,844	1,348	201	452	56,002
Forgery and offences against the currency ..	484	16	3	8	1	1	15	22	550
Against good order ..	104,358	33,975	28,582	7,108	7,182	1,286	1,724	602	184,817
Other ..	178,253	185,657	38,324	41,495	33,335	20,290	803	1,438	499,595
<b>Total ..</b>	<b>314,307</b>	<b>235,581</b>	<b>71,642</b>	<b>52,155</b>	<b>45,773</b>	<b>23,212</b>	<b>2,812</b>	<b>2,613</b>	<b>748,095</b>

(a) Year ended 30th June.

(b) A person convicted on several counts at the one hearing is included only once.



The following table shows the number of convictions in each year from 1957 to 1961.

### CONVICTIONS AT MAGISTRATES' COURTS

State or Territory	1957	1958	1959	1960	1961
New South Wales(a) ..	282,489	294,540	303,504	306,436	314,307
Victoria .. ..	208,125	251,065	265,214	(a) 245,807	(a) 235,581
Queensland(b)(c) ..	52,113	(a) 60,592	(a) 60,212	(a) 67,508	(a) 71,642
South Australia(a)(b) ..	30,658	32,621	34,203	42,531	52,155
Western Australia(a) ..	56,297	47,037	47,579	47,462	45,773
Tasmania(a) ..	17,040	17,216	19,094	20,196	23,212
Northern Territory ..	(b) 2,340	2,715	3,212	2,664	2,812
Australian Capital Territory ..	1,597	1,910	1,787	2,280	2,613
<b>Australia .. ..</b>	<b>650,659</b>	<b>707,696</b>	<b>734,805</b>	<b>734,884</b>	<b>748,095</b>

(a) See footnote (a) to first table on previous page. (b) Year ended 30th June. (c) A person convicted on several counts at the one hearing is included only once.

(iii) *Convictions for Serious Crime at Magistrates' Courts.* (a) *General.* The figures given in the preceding tables refer to all convictions, and include offences of a technical nature, drunkenness, and minor breaches of good order, which come under the heading of crime in a very different sense from the more serious offences. The following table has therefore been prepared to show convictions at Magistrates' Courts for what may be regarded as the more serious offences, i.e., offences against the person, offences against property, forgery and offences against the currency.

(b) *Number and Rates.* The following table shows the number of convictions for serious crime at Magistrates' Courts for the years 1957 to 1961.

### CONVICTIONS FOR SERIOUS CRIME(a) AT MAGISTRATES' COURTS

State or Territory	1957	1958	1959	1960	1961
New South Wales .. ..	23,510	27,960	30,769	31,529	31,696
Victoria .. ..	8,926	11,132	12,260	15,646	15,949
Queensland(b)(c) .. ..	4,079	4,301	4,422	4,678	4,736
South Australia(b) .. ..	2,298	2,338	2,554	2,604	3,552
Western Australia .. ..	5,205	6,016	5,423	5,764	5,256
Tasmania .. ..	1,738	1,666	1,634	1,788	1,636
Northern Territory .. ..	(b) 247	209	297	243	285
Australian Capital Territory ..	295	357	384	331	573
<b>Australia .. ..</b>	<b>46,298</b>	<b>53,979</b>	<b>57,743</b>	<b>62,583</b>	<b>63,683</b>

(a) Offences against the person, offences against property, forgery and offences against the currency. (b) Year ended 30th June. (c) A person convicted on several counts at the one hearing is included only once.

The numbers of convictions for serious crime at Magistrates' Courts per 10,000 of population for the same series of years for Australia were:—1957, 48.0; 1958, 54.8; 1959, 57.4; 1960, 60.9; 1961, 60.6.

(c) *Rate of Convictions, 1881 to 1961.* The rate of convictions at ten-year intervals over a period of 80 years is shown below.

**RATE OF CONVICTIONS FOR SERIOUS CRIME AT MAGISTRATES' COURTS: AUSTRALIA**

Year .. .. .	1881	1891	1901	1911	1921	1931	1941	1951	1961
Convictions per 10,000 persons	69	45	29	25	29	37	34	37	61

(iv) *Committals to Higher Courts. (a) Number of Committals.* The following table shows the number of offences, classified according to the nature of the offence, which were committed to higher courts for each State and Territory for the year 1961.

**COMMITTALS TO HIGHER COURTS, 1961**

Class of offence	N.S.W.	Vic.	Qld (a)(b)	S.A. (a)	W.A.	Tas.	N.T.	A.C.T.	Aus- tralia
Against the person ..	1,604	761	359	304	46	54	24	8	3,160
Against property ..	5,806	3,142	1,143	323	230	645	56	56	11,401
Forgery and offences against the currency ..	691	291	7	13	11	21	6	1	1,041
Against good order ..	102	129	1	9	5	1	..	..	247
Other .. .. .	91	275	17	22	6	4	..	..	415
<b>Total .. .. .</b>	<b>8,294</b>	<b>4,598</b>	<b>1,527</b>	<b>671</b>	<b>298</b>	<b>725</b>	<b>86</b>	<b>65</b>	<b>16,264</b>

(a) Year ended 30th June.

(b) A person committed on several counts at the one hearing is included only once.

The following table shows the number of committals to higher courts for each of the years 1957 to 1961.

**COMMITTALS TO HIGHER COURTS**

State or Territory	1957	1958	1959	1960	1961
New South Wales .. ..	7,221	7,327	7,522	8,212	8,294
Victoria .. .. .	2,707	4,227	4,523	5,274	4,598
Queensland(a) .. ..	712	911	954	1,211	1,527
South Australia(a) .. ..	552	505	558	542	671
Western Australia .. ..	356	463	447	362	298
Tasmania .. .. .	604	600	529	475	725
Northern Territory .. ..	(a) 62	66	93	26	86
Australian Capital Territory ..	37	74	65	97	65
<b>Australia .. .. .</b>	<b>12,251</b>	<b>14,173</b>	<b>14,691</b>	<b>16,199</b>	<b>16,264</b>

(a) Year ended 30th June.

(b) *Rate of Committals, 1881 to 1961.* The rate of committals to higher courts for serious crime at ten-year intervals since 1881 is shown below.

**RATE OF COMMITTALS TO HIGHER COURTS: AUSTRALIA**

Year .. .. .	1881	1891	1901	1911	1921	1931	1941	1951	1961
Committals per 10,000 persons	12	11	8	6	7	8	5	8	16

(v) *Convictions for Drunkenness. (a) Number and Rates.* The numbers of convictions recorded during each of the years 1957 to 1961 are given in the following table.

#### DRUNKENNESS: CONVICTIONS

State or Territory	1957	1958	1959	1960	1961
New South Wales .. ..	75,953	68,354	69,201	68,591	67,809
Victoria .. ..	25,284	29,434	29,334	29,116	27,212
Queensland(a) .. ..	23,521	28,196	26,918	28,538	26,136
South Australia(a) .. ..	5,019	4,299	4,439	5,273	5,438
Western Australia .. ..	5,428	4,821	5,587	5,144	5,333
Tasmania .. ..	760	718	660	512	534
Northern Territory .. ..	(a) 1,029	926	1,010	822	1,037
Australian Capital Territory ..	322	380	255	298	307
<b>Australia .. ..</b>	<b>137,316</b>	<b>137,128</b>	<b>137,404</b>	<b>138,294</b>	<b>133,806</b>

(a) Year ended 30th June.

The term "drunkenness" includes "drunkenness and disorderliness", and "habitual drunkenness".

The rates of convictions for drunkenness for the years 1957 to 1961 per 10,000 of population for Australia were:—1957, 142.5; 1958, 139.3; 1959, 136.6; 1960, 134.6; 1961, 128.7.

(b) *Rate of Convictions, 1901 to 1961.* The rate of convictions for drunkenness since 1901 is shown below.

#### RATE OF CONVICTIONS FOR DRUNKENNESS: AUSTRALIA

Year .. ..	1901	1911	1921	1931	1941	1951	1961
Convictions per 10,000 persons..	133	133	97	57	91	175	129

(c) *Remedial Treatment of Drunkenness.* For particulars of relevant legislation and some details of the various institutions established for the treatment of inebriates, see Official Year Book, No. 46, p. 632.

(vi) *First Offenders.* In all States and Territories, statutes are in force for dealing with first offenders. For particulars of the relevant legislation, see Official Year Book, No. 46, page 632. Provisions are incorporated in the various Acts whereby courts may extend leniency to the offender by means such as: (i) dismissal of the charge without proceeding to a conviction; (ii) freeing the offender or suspending sentence with the requirement of a recognizance for good behaviour for a specified period; and (iii) by placing the offender under the supervision of a probation officer for a specified period. The provisions existing in the individual States and Territories are set out in Year Book No. 46.

3. **Civil Proceedings.**—The total numbers of complaints entered and the amounts awarded to plaintiffs during 1961 are shown in the following table. The figures are compiled from returns from the Small Debts Courts in New South Wales, Courts of Petty Sessions in Victoria, Magistrates' Courts in Queensland, Local Courts in South Australia and Western Australia, Courts of Requests in Tasmania, Local Courts in the Northern Territory and the Court of Petty Sessions in the Australian Capital Territory.

## CIVIL CASES AT LOWER COURTS, 1961

Particulars	N.S.W.	Vic.	Qld (a)	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aus- tralia
Plaints entered No.	140,417	208,219	42,587	106,097	46,657	40,976	1,994	4,157	591,104
Amount awarded to plaintiffs £	1,426,098	3,973,358	994,514	2,145,057	863,041	529,855	65,638	78,398	10,075,959

(a) Year ended 30th June.

## § 3. Children's Courts

1. *New South Wales.*—Children's Courts, first established in 1905, now exercise jurisdiction under the *Child Welfare Act* 1939–1960. Each court consists of a special magistrate with jurisdiction within a proclaimed area. Elsewhere, the jurisdiction of a court may be exercised by a special magistrate or two justices of the peace. Where practicable, children's courts are not held in ordinary court rooms, and persons not directly interested are excluded from any hearing.

The magistrates exercise all the powers of a Court of Petty Sessions in respect of offences committed by or against children under 18 years of age. They also exercise jurisdiction in respect of neglected and uncontrollable children. Their functions are reformative, not punitive; they may commit children to institutions, to the care of persons other than the parents, or to the care of the Minister.

2. *Victoria.*—Under the *Children's Court Act* 1958, the jurisdiction of Children's Courts is restricted, with certain exceptions, to children up to 17 years of age. Two stipendiary special magistrates with jurisdiction throughout the State and, in addition, honorary special magistrates, operate in some metropolitan courts and provincial cities. At country courts to which no special magistrates are appointed, the local stipendiary magistrate usually constitutes the bench. The Children's Court may deal with all offences except homicide. However, consent to the jurisdiction of the Children's Court must be indicated by the child (or by a parent if the child is under 14 years of age) before an indictable case may proceed.

The primary aim of the Children's Court is reformation and rehabilitation of the offender, and the court, under Section 27 (3) of the *Children's Court Act* 1958, must "firstly have regard to the welfare of the child".

The probation system has been in use by the Children's Court since 1907, and there are now in Victoria a large number of honorary probation officers as well as six stipendiary probation officers. Problem cases are referred by the Court for investigation to a Children's Court Clinic, which is staffed by psychiatrists, psychologists and social workers.

3. *Queensland.*—Children under the age of 17 years before the Court on summary charges are dealt with under the *Children's Court Acts*, 1907–1930, and the *State Children Acts*, 1911–1955. The Children's Court in the metropolitan area is presided over by a magistrate, and the services of the psychiatric clinic are available to him if he considers they are needed. Proceedings are held *in camera*. A non-commissioned police officer is present to offer any observations he considers necessary and to assist the magistrate. In country areas, the court is presided over by the local stipendiary magistrate or, in his absence, by two justices. If found guilty, a child may be either admonished, released on probation, or committed to the care of the State Children Department or an institution. A conviction will not necessarily be recorded against him. His parent or guardian may be ordered to pay damages to the wronged party, and in default is liable to the same consequences as a defendant in an ordinary Court of Petty Sessions.

4. *South Australia.*—Provision for the treatment of juvenile offenders under the age of 18 years is contained in various Acts, the main ones being the *Maintenance Act*, 1926–1958, the *Juvenile Courts Act*, 1941, the *Justices Act*, 1921–1960, and the *Offenders Probation*

*Act, 1913-1953.* A Juvenile Court to hear cases of offences by children is constituted by a special magistrate or two justices of a Juvenile Court, and it has power to determine all charges other than homicide. A child convicted of an offence punishable by imprisonment can be committed by a court only to a reformatory. For indictable offences, the penalty is committal to a reformatory or a fine of up to £50.

**5. Western Australia.**—Children's Courts deal with offenders under the age of 18 years and hear cases of certain offences against children. Special magistrates are appointed for Children's Courts, and the Governor may appoint other persons to be members of a particular Children's Court. One member may sit and adjudicate with the special magistrate, but in the magistrate's absence at least two members must be present.

A Children's Court is deemed to be a court of summary jurisdiction and may exercise exclusive jurisdiction in respect of all offences except wilful murder, murder, manslaughter or treason alleged to have been committed by children.

Adults charged with certain indictable offences against children may forego the right to trial by jury and agree to be dealt with summarily by Children's Courts.

**6. Tasmania.**—Under the provisions of the *Child Welfare Act 1960*, Children's Courts are established to deal with offenders under the age of 17 years. Special magistrates may be appointed by the Governor to adjudicate in these Courts, and one such Magistrate is sufficient to constitute a Court. In the absence of a Special Magistrate, the Court may be constituted by a Police Magistrate or two justices.

A Children's Court is a court of summary jurisdiction, but in the case of children under 14 years of age it may hear and determine all indictable offences except murder, attempt to murder, manslaughter, and wounding with intent to do grievous bodily harm. When children over this age are charged with an indictable offence, they, or their parents on their behalf, may elect to be dealt with by the Court in a summary way instead of being tried by a jury, except when the offences are murder, attempt to murder, manslaughter, rape, wounding with intent to do grievous bodily harm and robbery with violence.

**7. Northern Territory.**—The *Child Welfare Ordinance 1958-1960* provides for the establishment of Children's Courts. These courts are constituted by a special magistrate and one member of the Child Welfare Council authorized to sit as a member of the Children's Court. Where no Children's Court has been established for a particular area, or where special circumstances require it, the jurisdiction of a Children's Court may be exercised by a court of summary jurisdiction constituted by a special magistrate.

Proceedings in a Children's Court are in form similar to proceedings in a court of summary jurisdiction, but no reports of proceedings may be published without the express authority of the Court, and any person not directly concerned may be excluded from the hearing.

A Children's Court has jurisdiction in respect of all offences committed by persons under 18 years of age in respect of which proceedings may be taken in a court of summary jurisdiction. In dealing with such offences, the Court may, in cases other than homicide, impose a fine not exceeding fifty pounds or a sentence of imprisonment for not more than six months, and, in addition to or in lieu of these punishments, may make an order committing the child to the care of the Director of Child Welfare or of a person who is willing to undertake the care on the Court's terms and conditions (in which case the child may be declared a State child), or it may commit the child to an institution for a specified period or release the child on probation on such conditions as the Court orders. Children's Courts also exercise jurisdiction in respect of destitute, neglected, incorrigible or uncontrollable children.

**8. Australian Capital Territory.**—The *Child Welfare Ordinance 1957* provides that the Court of Petty Sessions constitutes the Children's Court when it is hearing proceedings involving persons under the age of 18 years. Its proceedings are similar to those of an ordinary Court of Petty Sessions except that persons not directly interested are excluded from the Court.

In addition to the power to deal with summary offences, the Children's Court has power to hear and determine summarily a charge for an indictable offence other than an offence punishable by death. In either case, the Court's powers include releasing an offender on probation, committing him to the care of a specified person, making him a government ward, or committing him to an institution for up to three years.

## § 4. Higher (Judges') Courts

NOTE.—In interpreting the statistics in the following paragraph, the factors affecting comparability listed at the beginning of this chapter (p. 657) should be borne in mind.

1. **Criminal Proceedings.**—(i) *Offences for which Persons were convicted at Higher Courts.* The following table shows the number of persons convicted at higher courts in each of the States and Territories of Australia during 1961, classified according to the nature of the offence.

## PERSONS CONVICTED AT HIGHER COURTS, 1961

Offence	N.S.W.	Vic.	Qld (a)(b)	S.A.	W.A.	Tas. (c)	N.T.	A.C.T.	Aust.
<b>Against the person—</b>									
Infanticide ..	1	..	..	..	..	..	..	..	1
Concealment of birth ..	..	..	..	2	..	..	..	..	2
Murder ..	11	4	4	..	2	2	..	1	24
Attempted murder ..	4	1	6	..	..	1	..	..	12
Manslaughter(d) ..	23	8	5	8	7	1	2	..	54
Culpable driving ..	14	..	..	..	..	..	..	..	14
Rape ..	21	19	20	1	1	6	2	..	70
Incest ..	..	14	7	4	3	..	..	..	28
Other offences against females ..	257	290	98	148	1	9	3	..	806
Abduction ..	5	4	3	2	..	..	..	..	14
Unnatural offences ..	109	76	31	29	5	1	9	1	261
Abortion and attempt to procure ..	8	3	..	..	..	..	..	..	11
Bigamy ..	24	8	3	4	1	..	1	..	41
Malicious wounding ..	47	..	..	..	..	..	..	..	47
Attempted suicide ..	1	1	..	..	..	..	..	..	2
Aggravated assault ..	53	20	40	14	5	6	13	3	154
Common assault ..	42	43	8	3	1	3	..	..	100
Other offences against the person ..	14	78	19	..	..	8	1	..	120
<b>Total ..</b>	<b>634</b>	<b>569</b>	<b>244</b>	<b>215</b>	<b>26</b>	<b>37</b>	<b>31</b>	<b>5</b>	<b>1,761</b>
<b>Against property—</b>									
Burglary, breaking and entering ..	1,145	994	535	239	104	181	12	25	3,235
Robbery and stealing from the person ..	108	74	24	9	4	..	2	2	223
Livestock stealing ..	..	17	17	5	4	..	2	..	45
Embezzlement and fraudulent misappropriation ..	77	14	12	11	9	4	3	1	131
Other larceny ..	571	233	37	16	21	33	12	17	940
Unlawfully using vehicles ..	..	57	322	..	2	..	..	..	381
Receiving ..	36	48	36	8	7	12	1	..	148
Fraud and false pretences ..	80	44	15	24	8	12	1	3	187
Arson ..	4	9	7	1	2	2	1	..	26
Malicious damage ..	5	9	2	2	..	1	1	..	20
Other offences against property ..	5	13	13	5	..	1	2	..	39
<b>Total ..</b>	<b>2,031</b>	<b>1,512</b>	<b>1,020</b>	<b>320</b>	<b>161</b>	<b>246</b>	<b>37</b>	<b>48</b>	<b>5,375</b>
<b>Forgery and offences against the currency ..</b>	<b>24</b>	<b>62</b>	<b>7</b>	<b>20</b>	<b>7</b>	<b>11</b>	<b>19</b>	<b>1</b>	<b>151</b>
<b>Against good order ..</b>	<b>2</b>	<b>6</b>	<b>..</b>	<b>..</b>	<b>3</b>	<b>10</b>	<b>..</b>	<b>..</b>	<b>21</b>
<b>Other ..</b>	<b>21</b>	<b>158</b>	<b>8</b>	<b>51</b>	<b>6</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>244</b>
<b>Grand Total ..</b>	<b>2,712</b>	<b>2,307</b>	<b>1,279</b>	<b>606</b>	<b>203</b>	<b>304</b>	<b>87</b>	<b>54</b>	<b>7,552</b>

(a) Year ended 30th June. (b) A person convicted on several counts at the one hearing is included only once, but if a person has been convicted at different hearings during the year, whether for the same or for a different type of offence, the results of all hearings are recorded separately. (c) Convictions. (d) Includes causing death by dangerous driving.

(ii) *Persons Convicted at Higher Courts, Numbers and Rates.* The numbers of persons convicted at higher courts for the years 1957 to 1961 are given in the following table.

## PERSONS CONVICTED AT HIGHER COURTS

State or Territory	1957	1958	1959	1960	1961
New South Wales .. ..	2,225	2,274	2,325	2,635	2,712
Victoria .. ..	1,643	1,779	1,799	1,996	2,307
Queensland(a)(b) .. ..	584	883	915	1,020	1,279
South Australia .. ..	459	457	499	580	606
Western Australia .. ..	200	255	216	183	203
Tasmania(c) .. ..	205	276	290	295	304
Northern Territory .. ..	(a) 59	31	69	29	87
Australian Capital Territory ..	32	50	40	62	54
<b>Australia .. ..</b>	<b>5,407</b>	<b>6,005</b>	<b>6,153</b>	<b>6,800</b>	<b>7,552</b>

(a) Year ended 30th June.

(b) A person convicted on several counts at the one hearing is included only once.

(c) Convictions.

The numbers of persons convicted at higher courts in Australia per 10,000 of population for the years 1957 to 1961 were:—1957, 5.6; 1958, 6.1; 1959, 6.1; 1960, 6.6; 1961, 7.2.

(iii) *Habitual Offenders.* An account of the methods adopted in each jurisdiction in connexion with habitual offenders is given in the following paragraphs.

(a) *Commonwealth.* Under the provisions of the *Crimes Act* 1914–1960, where a person who is convicted of an indictable offence against the law of the Commonwealth has been previously convicted on at least two occasions of indictable offences against the law of the Commonwealth or of a State or Territory, the court before which he is convicted may declare that he is a habitual criminal, and may direct as part of his sentence that on expiration of the term of imprisonment then imposed on him he be detained during the pleasure of the Governor-General.

(b) *New South Wales.* The *Habitual Criminals Act* 1957 gives power to judges to declare as a habitual criminal any person of or above the age of 25 years who has been convicted on indictment and has on at least two occasions previously served separate terms of imprisonment as a consequence of convictions for indictable offences, provided that such offences were not dealt with summarily without his consent. A person may also be pronounced by a Judge to be a habitual criminal upon recommendation by a Stipendiary Magistrate.

A judge, having pronounced a person to be a habitual criminal, shall sentence him to a term of imprisonment of not less than five years nor more than fourteen years.

A habitual criminal so sentenced may be considered for release on licence in the light of his conduct and attitude after he has served two-thirds of his sentence. He will, in any event, be granted a remission to permit his release on licence after five-sixths of his sentence, subject to good conduct and industry.

(c) *Victoria.* The Indeterminate Sentences provisions of the *Crimes Act* were abolished as from 1st July, 1957, with the proclamation of the *Penal Reform Act* 1956. The terms "reformatory prison" and "habitual criminal" also ceased to exist as from that date.

Under the *Penal Reform Act* 1956, a sentence of twelve months or more must contain provision for an offender's release on parole after he has served a minimum term which must be named. With sentences of under twelve months, the courts may fix a minimum term.

The relevant parts of the *Penal Reform Act* 1956 have now been embodied in Sections 506 to 542 of the *Crimes Act* 1958. In the case of the persistent offender, if the court is satisfied that it is expedient for the protection of the public that he should be detained in gaol for a substantial time, the court may pass a sentence of preventive detention for a term of not more than ten years, and where any such sentence is passed shall fix a minimum term during which the offender shall not be eligible to be released on parole.

(d) *Queensland.* Sections 659A to 659I, of the *Criminal Code of Queensland* deal with habitual criminals. Only the Supreme Court or a judge thereof, or a District Court Judge, may declare a person to be a habitual criminal. A habitual criminal is detained in a reformatory prison (Section 659D) and there employed (Section 659F).

Where the Supreme Court or a judge recommends the discharge of a habitual criminal, the Governor may direct his discharge and may order him so long as he remains in Queensland to report at intervals during any period not exceeding two years (Section 659G).

A habitual criminal may be released by order in writing (called a "parole order") by the Parole Board set up under the provisions of the *Offenders Probation and Parole Act* of 1959, after he has been detained during a period of two years (Section 32).

(e) *South Australia.* The *Criminal Law Consolidation Act 1935-1957* provides that persons previously convicted of a certain number of indictable offences of a particular class may be declared habitual criminals and shall then be detained during Her Majesty's pleasure. Proof of previous convictions is in all cases relevant to the question of penalty.

(f) *Western Australia.* Under the *Criminal Code Amendment Act 1918*, power is given to sentence a prisoner to be detained in a reformatory prison during the Governor's pleasure, where such prisoner is deemed to be a habitual criminal, or in other special circumstances where the Court considers such a sentence is fit.

The number under preventive detention on 30th June, 1962, was 29, and the total number dealt with since the passing of the Act was 236.

(g) *Tasmania.* Since the *Indeterminate Sentences Act* came into operation in 1922, 166 persons have been confined under its provisions and 27 were in custody at the end of 1962.

Of the 133 released on probation, 32 have been recommitted.

(h) *Northern Territory.* The *Habitual Criminals Amendment Act 1907* of South Australia is still in force in the Northern Territory. By virtue of that Act, a Judge of the Northern Territory Supreme Court has power to declare as habitual criminals persons of any age who come before him for sentence and have had at least two or, in some cases, three previous convictions for certain indictable offences specified in the Act. The result of the declaration is that the offender is detained for an indefinite period after the completion of his sentence, and is released only when he is considered fit to be at large.

(i) *Australian Capital Territory.* The *Habitual Criminals Act 1905* of New South Wales is still in force in the Australian Capital Territory. By virtue of that Act, a judge of the Australian Capital Territory Supreme Court has power to declare as habitual criminals persons of any age who come before him for sentence and have had at least two or, in some cases, three previous convictions for certain indictable offences specified in the Act. The result of the declaration is that the offender is confined for an indefinite period after the completion of his sentence, and is released only when he is considered fit to be at large. Habitual criminals declared in the Australian Capital Territory are detained in New South Wales.

(iv) *Capital Punishment.* There were eight executions in Australia during the period 1952 to 1961. Three took place in South Australia (one each in 1953, 1956, and 1958), three in Western Australia (one each in 1952, 1960, and 1961), and two in the Northern Territory (in 1952). In each case the offence was murder.

Under the *Criminal Code Amendment Act* of 1922, capital punishment was abolished in Queensland, and in New South Wales the *Crimes Act* was amended in 1955, abolishing capital punishment for all offences except treason and piracy with violence. In the Australian Capital Territory, the *Child Welfare Ordinance 1957* now provides that no death sentence is to be pronounced or recorded against a person under the age of 18 years.

In the early days of the history of Australia, the penalty of death was attached to a large number of offences, many of which would now be dealt with in a Magistrate's Court. The present tendency is to restrict death sentences to persons convicted of murder. Although rape is a capital offence in some States, the penalty of death has not been imposed in recent years on persons convicted of it.



The average annual number of executions in Australia from 1861 to 1880 was 9; from 1881 to 1900, 6; from 1901 to 1910, 4; from 1911 to 1920, 2; from 1921 to 1930, 2; from 1931 to 1940, 1; from 1941 to 1950, 0.5; and from 1951 to 1960, 1.0.

**2. Divorce and Other Matrimonial Relief.**—(i) *Separation and Maintenance Orders of Courts of Summary Jurisdiction.* In all States and Territories, there are laws enabling a wife whose husband leaves her or the children of the marriage without adequate means of support to obtain a maintenance order against the husband from a court of summary jurisdiction. In some States and in the Northern Territory, courts of summary jurisdiction also have power to make separation orders. A separation order is intended primarily for the protection of the person of the wife.

(ii) *Divorce and Other Matrimonial Relief Granted by Higher Courts.* A marriage may be terminated by a Supreme Court of a State or Territory in one of three ways. Firstly, there may be a dissolution of the marriage, commonly known as divorce; secondly, the courts may annul a marriage; and thirdly, there can be a judicial separation of the parties.

Until recently, each State was primarily responsible for the provision of matrimonial relief. The law varied from State to State; for example, as to the period of desertion needed to obtain a decree for the dissolution of marriage.

In 1959, however, the Commonwealth Parliament passed the *Matrimonial Causes Act 1959* which came into force on 1st February, 1961. The Act establishes uniform grounds throughout the whole of the Commonwealth for the termination of marriage. While the Act displaces corresponding State law, it vests jurisdiction in existing State and Territorial Courts.

Some of the statistical information given in this section relates to proceedings under the system before the operation of the Commonwealth Act.

(iii) *Matrimonial Causes Act 1959.* Under the *Commonwealth Matrimonial Causes Act 1959*, a decree for the dissolution of marriage may be granted on fourteen grounds, which include adultery, desertion, insanity, separation for five years in certain circumstances, or failure to comply with a restitution decree.

Proceedings for nullity of marriage may be instituted in respect of a marriage which is void or voidable. A marriage which is void has no existence at all, and so it is not legally necessary to obtain a decree of nullity of marriage, but since the issue may depend on difficult questions of fact, such as proof that the consent of one of the parties to the marriage was not a real consent, it is advisable and customary to seek a court judgment which decides the question of the validity of the marriage.

Proceedings for annulling a voidable marriage may be instituted on various grounds, as, for example, where at the time of the marriage either party was a mental defective. A voidable marriage is void from the date of the decree absolute, but until then the parties have the status of married people, and transactions concluded on the basis of the existence of that status cannot be undone or re-opened. Since the parties to a marriage which is void or which has been voided do not have the status of married people, they may remarry.

The death of either husband or wife terminates any proceedings for matrimonial relief. A decree for dissolution or annulment of a voidable marriage is first a decree *nisi*. The decree automatically becomes absolute at the expiration of three months, unless it is in the meantime rescinded, appeal proceedings are instituted, or there are children of the marriage under the age of 16, in which case the Court must be satisfied that appropriate arrangements have been made for their welfare before the decree will become absolute. The parties cannot remarry until a decree *nisi* has become absolute.

A decree of judicial separation is available on most of the grounds available for divorce. It leaves unimpaired the status of marriage, but suspends rights and duties with respect to cohabitation. A husband is not responsible for the acts of his wife, except that he is liable for necessities supplied to her if he has failed to pay alimony ordered by a court. Persons who have judicially separated cannot remarry, but a divorce may be obtained on the same facts as those on which the decree of judicial separation was based.

The new Commonwealth Act provides for financial grants to approved marriage guidance organizations, and the courts are enjoined to consider at all times the possibility of reconciliation and they may take certain steps to endeavour to effect a reconciliation.

In the following tables, the term "divorce" is used to cover dissolution of marriage, nullity of marriage and judicial separation.

(iv) *Number of Petitions Filed.* The following table shows the number of petitions for dissolution of marriage, nullity of marriage and judicial separation filed in each State during 1961 and 1962.

### PETITIONS FILED FOR DISSOLUTION OF MARRIAGE, NULLITY OF MARRIAGE AND JUDICIAL SEPARATION

Petition for—	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961									
Dissolution of marriage—									
Husband petitioner ..	1,833	1,107	533	406	305	154	23	33	4,394
Wife petitioner ..	2,382	1,182	551	459	315	167	17	37	5,110
<i>Total ..</i>	<i>4,215</i>	<i>2,289</i>	<i>1,084</i>	<i>865</i>	<i>620</i>	<i>321</i>	<i>40</i>	<i>70</i>	<i>9,504</i>
Nullity of marriage—									
Husband petitioner ..	6	2	4	1	..	..	..	..	13
Wife petitioner ..	22	8	5	8	..	1	..	..	44
<i>Total ..</i>	<i>28</i>	<i>10</i>	<i>9</i>	<i>9</i>	<i>..</i>	<i>1</i>	<i>..</i>	<i>..</i>	<i>57</i>
Dissolution or nullity—									
Husband petitioner ..	..	3	..	..	..	..	..	..	3
Wife petitioner ..	..	4	..	..	..	..	..	..	4
<i>Total ..</i>	<i>..</i>	<i>7</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>7</i>
Judicial separation—									
Husband petitioner ..	..	..	..	..	2	..	..	..	2
Wife petitioner ..	4	..	2	3	..	..	..	..	9
<i>Total ..</i>	<i>4</i>	<i>..</i>	<i>2</i>	<i>3</i>	<i>2</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>11</i>
Total petitions—									
Husband petitioner No.	1,839	1,112	537	407	307	154	23	33	4,412
Per cent.	43	48	49	46	49	48	58	47	46
Wife petitioner No.	2,408	1,194	558	470	315	168	17	37	5,167
Per cent.	57	52	51	54	51	52	42	53	54
<i>Grand Total ..</i>	<i>4,247</i>	<i>2,306</i>	<i>1,095</i>	<i>877</i>	<i>622</i>	<i>322</i>	<i>40</i>	<i>70</i>	<i>9,579</i>

### 1962

Dissolution of marriage—									
Husband petitioner ..	1,724	1,005	508	368	296	127	25	19	4,072
Wife petitioner ..	2,369	1,143	575	542	355	149	14	29	5,176
<i>Total ..</i>	<i>4,093</i>	<i>2,148</i>	<i>1,083</i>	<i>910</i>	<i>651</i>	<i>276</i>	<i>39</i>	<i>48</i>	<i>9,248</i>
Nullity of marriage—									
Husband petitioner ..	8	3	2	1	1	..	..	..	15
Wife petitioner ..	13	10	5	3	2	2	..	..	35
<i>Total ..</i>	<i>21</i>	<i>13</i>	<i>7</i>	<i>4</i>	<i>3</i>	<i>2</i>	<i>..</i>	<i>..</i>	<i>50</i>
Dissolution or nullity—									
Husband petitioner ..	..	4	1	1	..	..	..	..	6
Wife petitioner ..	..	5	..	..	..	..	..	..	5
<i>Total ..</i>	<i>..</i>	<i>9</i>	<i>1</i>	<i>1</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>11</i>
Judicial separation—									
Husband petitioner ..	1	..	1	..	..	..	..	..	2
Wife petitioner ..	9	4	2	1	..	2	..	..	18
<i>Total ..</i>	<i>10</i>	<i>4</i>	<i>3</i>	<i>1</i>	<i>..</i>	<i>2</i>	<i>..</i>	<i>..</i>	<i>20</i>
Total petitions—									
Husband petitioner No.	1,733	1,012	512	370	297	127	25	19	4,095
Per cent.	42	47	47	40	45	45	64	40	44
Wife petitioner No.	2,391	1,162	582	546	357	153	14	29	5,234
Per cent.	58	53	53	60	55	55	36	60	56
<i>Grand Total ..</i>	<i>4,124</i>	<i>2,174</i>	<i>1,094</i>	<i>916</i>	<i>654</i>	<i>280</i>	<i>39</i>	<i>48</i>	<i>9,329</i>

(v) *Number of Divorces Granted.* The following table shows the number of dissolutions of marriage, nullities of marriage and judicial separations granted in each State during 1961 and 1962.

### DISSOLUTIONS OF MARRIAGE, NULLITIES OF MARRIAGE AND JUDICIAL SEPARATIONS GRANTED

Decree for—	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961									
<b>Dissolution of marriage(a)—</b>									
Husband petitioner ..	1,419	594	362	288	224	124	15	23	3,049
Wife petitioner ..	1,737	654	417	390	242	162	8	13	3,623
Petition by both ..	..	..	..	1	..	..	..	..	1
<b>Total ..</b>	<b>3,156</b>	<b>1,248</b>	<b>779</b>	<b>679</b>	<b>466</b>	<b>286</b>	<b>23</b>	<b>36</b>	<b>6,673</b>
<b>Nullity of marriage(b)—</b>									
Husband petitioner ..	6	5	..	3	..	..	..	..	14
Wife petitioner ..	12	4	2	3	..	..	..	1	22
<b>Total ..</b>	<b>18</b>	<b>9</b>	<b>2</b>	<b>6</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>1</b>	<b>36</b>
<b>Judicial separation—</b>									
Husband petitioner ..	..	..	..	..	..	..	..	..	..
Wife petitioner ..	1	..	..	..	1	..	..	..	2
<b>Total ..</b>	<b>1</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>1</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>2</b>
<b>Total decrees—</b>									
Husband petitioner No.	1,425	599	362	291	224	124	15	23	3,063
Per cent.	45	48	46	43	48	43	65	64	46
Wife petitioner No.	1,750	658	419	393	243	162	8	14	3,647
Per cent.	55	52	54	57	52	57	35	36	54
Petition by both No.	..	..	..	1	..	..	..	..	1
<b>Grand Total ..</b>	<b>3,175</b>	<b>1,257</b>	<b>781</b>	<b>685</b>	<b>467</b>	<b>286</b>	<b>23</b>	<b>37</b>	<b>6,711</b>

### 1962

<b>Dissolution of marriage(a)—</b>									
Husband petitioner ..	1,389	738	422	301	283	125	19	18	3,295
Wife petitioner ..	1,724	877	498	358	299	123	18	26	3,923
Petition by both ..	..	..	..	1	..	..	1	..	2
<b>Total ..</b>	<b>3,113</b>	<b>1,615</b>	<b>920</b>	<b>660</b>	<b>582</b>	<b>248</b>	<b>38</b>	<b>44</b>	<b>7,220</b>
<b>Nullity of marriage(b)—</b>									
Husband petitioner ..	4	4	2	2	..	..	..	..	12
Wife petitioner ..	14	4	3	4	2	1	..	..	28
<b>Total ..</b>	<b>18</b>	<b>8</b>	<b>5</b>	<b>6</b>	<b>2</b>	<b>1</b>	<b>..</b>	<b>..</b>	<b>40</b>
<b>Judicial separation—</b>									
Husband petitioner ..	..	..	1	..	1	..	..	..	2
Wife petitioner ..	..	..	2	1	..	..	..	..	3
<b>Total ..</b>	<b>..</b>	<b>..</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>5</b>
<b>Total decrees—</b>									
Husband petitioner No.	1,393	742	425	303	284	125	19	18	3,309
Per cent.	44	46	46	46	49	50	50	41	46
Wife petitioner No.	1,738	881	503	363	301	124	18	26	3,954
Per cent.	56	54	54	54	51	50	47	59	54
Petition by both No.	..	..	..	1	..	..	1	..	2
Per cent.	..	..	..	..	..	..	3	..	..
<b>Grand Total ..</b>	<b>3,131</b>	<b>1,623</b>	<b>928</b>	<b>667</b>	<b>585</b>	<b>249</b>	<b>38</b>	<b>44</b>	<b>7,265</b>

(a) Decrees absolute.

(b) Final decrees.

(vi) *Number of Divorces Granted, 1958 to 1962.* The following table shows the number of dissolutions of marriage, nullities of marriage and judicial separations granted in each State and Territory for each year from 1958 to 1962.

## DISSOLUTIONS OF MARRIAGE, NULLITIES OF MARRIAGE AND JUDICIAL SEPARATIONS GRANTED

State or Territory	1958	1959	1960	1961	1962
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## DISSOLUTIONS OF MARRIAGE(a)

New South Wales .. .. .	3,217	3,363	3,243	3,156	3,113
Victoria .. .. .	1,698	1,861	1,296	1,248	1,615
Queensland .. .. .	759	739	696	779	920
South Australia .. .. .	483	503	610	679	660
Western Australia .. .. .	536	584	540	466	582
Tasmania .. .. .	176	222	210	286	248
Northern Territory .. .. .	15	14	5	23	38
Australian Capital Territory .. .. .	36	29	33	36	44
<i>Australia</i> .. .. .	<i>6,920</i>	<i>7,315</i>	<i>6,633</i>	<i>6,673</i>	<i>7,220</i>

## NULLITIES OF MARRIAGE(b)

New South Wales .. .. .	18	23	27	18	18
Victoria .. .. .	19	16	16	9	8
Queensland .. .. .	7	5	7	2	5
South Australia .. .. .	9	7	9	6	6
Western Australia .. .. .	6	2	2	..	2
Tasmania .. .. .	..	..	..	..	1
Northern Territory .. .. .	1	..	1	..	..
Australian Capital Territory .. .. .	1	..	1	1	..
<i>Australia</i> .. .. .	<i>61</i>	<i>53</i>	<i>63</i>	<i>36</i>	<i>40</i>

## JUDICIAL SEPARATIONS

New South Wales .. .. .	5	..	5	1	..
Victoria .. .. .	..	..	1	..	..
Queensland .. .. .	1	1	2	..	3
South Australia .. .. .	5	..	..	..	1
Western Australia .. .. .	2	1	5	1	1
Tasmania .. .. .	..	..	..	..	..
Northern Territory .. .. .	..	..	..	..	..
Australian Capital Territory .. .. .	..	..	..	..	..
<i>Australia</i> .. .. .	<i>13</i>	<i>2</i>	<i>13</i>	<i>2</i>	<i>5</i>

## TOTAL DIVORCES GRANTED

Grand Total .. .. .	6,994	7,370	6,709	6,711	7,265
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(a) Decrees absolute.

(b) Final decrees.

(vii) *Average Number of Divorces granted Annually.* The ten-year averages of the numbers of divorces (i.e., dissolutions, nullities and judicial separations) granted annually in Australia for the 80 years from 1881 to 1960 are as follows.

#### DIVORCES: AUSTRALIA

Decade	1881-90	1891-1900	1901-10	1911-20	1921-30	1931-40	1941-50	1951-60
Average	70	357	399	741	1,692	2,508	6,187	6,973

(viii) *Grounds on which Divorces were Granted.* The grounds on which dissolutions of marriage, nullities of marriage and judicial separations were granted during 1961 and 1962 in each State and Territory are shown in the following table. Some of the decrees granted during 1961 and 1962 were for petitions lodged under the former, superseded legislation.

#### GROUND OF DISSOLUTION OF MARRIAGE, NULLITY OF MARRIAGE AND JUDICIAL SEPARATION, 1961

Ground	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
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#### DISSOLUTION OF MARRIAGE

Single Grounds—									
Desertion .. ..	1,669	816	509	275	145	163	9	14	3,600
Adultery .. ..	797	306	188	221	196	81	8	14	1,811
Separation .. ..	121	34	36	20	95	31	1	4	342
Cruelty .. ..	79	8	4	133	4	2	2	1	231
Drunkenness ..	41	1	..	6	2	1	..	2	53
Frequent convictions ..	9	2	..	1	..	..	..	..	12
Imprisonment ..	7	..	..	..	1	1	..	..	9
Failure to pay maintenance ..	..	..	..	3	15	..	..	..	18
Non-compliance with restitution decree ..	296	..	..	..	..	..	..	..	296
Insanity .. ..	2	3	2	3	1	..	..	1	12
Refusal to consummate ..	3	2	..	..	2	..	1	..	8
Other single grounds ..	..	..	3	1	2	..	..	..	6
Dual Grounds—									
Desertion and adultery ..	17	55	8	8	2	2	1	..	93
Desertion and separation ..	5	8	20	1	2	..	..	..	36
Desertion and cruelty ..	7	..	..	1	..	..	1	..	9
Adultery and separation ..	..	..	..	2	1	..	..	..	3
Adultery and cruelty ..	2	1	1	..	..	..	..	..	4
Adultery and bigamy ..	3	3	..	..	..	..	..	..	6
Cruelty and drunkenness ..	90	1	2	1	1	2	..	..	97
Other dual grounds ..	6	4	2	..	..	..	..	..	12
Multiple grounds(a) ..	2	4	4	3	1	1	..	..	15
<b>Total .. ..</b>	<b>3,156</b>	<b>1,248</b>	<b>779</b>	<b>679</b>	<b>466</b>	<b>286</b>	<b>23</b>	<b>36</b>	<b>6,673</b>

#### NULLITY OF MARRIAGE

Bigamy .. ..	4	2	1	2	..	..	..	..	9
Invalid marriage ..	..	..	..	2	..	..	..	..	2
Incapacity to consummate ..	14	6	1	2	..	..	..	1	24
Want of consent ..	..	1	..	..	..	..	..	..	1
<b>Total .. ..</b>	<b>18</b>	<b>9</b>	<b>2</b>	<b>6</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>1</b>	<b>36</b>

(a) Three grounds or more.

**GROUND OF DISSOLUTION OF MARRIAGE, NULLITY OF MARRIAGE  
AND JUDICIAL SEPARATION, 1961—continued**

Ground	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
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**JUDICIAL SEPARATION**

Adultery .. ..	1	..	..	..	1	..	..	..	1
Cruelty .. ..	1	..	..	..	..	..	..	..	1
<i>Total</i> .. ..	<i>1</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>1</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>2</i>

**TOTAL DIVORCES GRANTED**

<b>Grand Total</b> ..	<b>3,175</b>	<b>1,257</b>	<b>781</b>	<b>685</b>	<b>467</b>	<b>286</b>	<b>23</b>	<b>37</b>	<b>6,711</b>
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**GROUND OF DISSOLUTION OF MARRIAGE, NULLITY OF MARRIAGE  
AND JUDICIAL SEPARATIONS, 1962**

Ground	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
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**DISSOLUTION OF MARRIAGE**

<b>Single Grounds—</b>									
Desertion .. ..	1,593	794	504	295	176	114	16	13	3,505
Adultery .. ..	645	248	155	166	196	56	11	13	1,490
Separation .. ..	414	245	158	122	155	59	4	2	1,159
Cruelty .. ..	114	5	10	58	4	3	3	7	204
Drunkenness ..	46	4	5	3	5	7	1	3	74
Frequent convictions ..	13	4	1	..	..	..	..	..	18
Failure to pay maintenance ..	1	..	..	1	14	1	..	..	17
Non-compliance with restitution decree ..	57	..	..	..	..	..	..	..	57
Insanity .. ..	30	..	..	4	2	..	..	..	36
Refusal to consummate ..	8	4	1	2	..	1	..	..	16
Other single grounds ..	3	..	2	..	4	..	..	..	9
<b>Dual Grounds—</b>									
Desertion and adultery ..	30	56	7	..	6	4	..	1	104
Desertion and separation ..	57	179	62	1	9	1	2	1	312
Desertion and cruelty ..	14	14	2	4	1	..	..	..	35
Desertion and drunkenness ..	13	3	4	..	..	1	..	1	22
Desertion and frequent convictions ..	4	6	2	..	..	..	..	..	12
Desertion and failure to pay maintenance ..	1	8	1	..	3	..	..	..	13
Adultery and separation ..	1	4	..	..	3	..	..	..	8
Adultery and cruelty ..	2	..	1	3	..	..	..	..	6
Separation and insanity ..	1	2	1	..	..	..	..	..	4
Cruelty and drunkenness ..	53	3	2	1	2	1	..	1	63
Other dual grounds ..	3	11	..	..	2	..	1	1	18
Multiple grounds (a) ..	10	25	2	..	..	..	..	1	38
<i>Total</i> .. ..	<i>3,113</i>	<i>1,615</i>	<i>920</i>	<i>660</i>	<i>582</i>	<i>248</i>	<i>38</i>	<i>44</i>	<i>7,220</i>

**NULLITY OF MARRIAGE**

Bigamy .. ..	7	2	2	3	..	..	..	..	14
Incapacity to consummate ..	11	6	3	2	1	1	..	..	24
Other .. ..	..	..	..	1	1	..	..	..	2
<i>Total</i> .. ..	<i>18</i>	<i>8</i>	<i>5</i>	<i>6</i>	<i>2</i>	<i>1</i>	<i>..</i>	<i>..</i>	<i>40</i>

(a) Three grounds or more.

**GROUND OF DISSOLUTION OF MARRIAGE, NULLITY OF MARRIAGE  
AND JUDICIAL SEPARATION, 1962—continued**

Ground	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
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**JUDICIAL SEPARATION**

Adultery .. ..	..	..	2	..	..	..	..	..	2
Desertion .. ..	..	..	1	..	1	..	..	..	2
Other .. ..	..	..	..	1	..	..	..	..	1
<b>Total</b> .. ..	..	..	3	1	1	..	..	..	5

**TOTAL DIVORCES GRANTED**

<b>Grand Total</b> ..	3,131	1,623	928	667	585	249	38	44	7,265
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(ix) *Ages of Husband and Wife at time of Marriage.* The following tables show the ages at time of marriage of husbands and wives who were parties to marriages dissolved in 1961 and 1962.

**DISSOLUTIONS: AGES OF PARTIES AT TIME OF MARRIAGE, AUSTRALIA**

Age of husband (years)	Age of wife (years)											Total husbands
	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60 and over	Not stated	
1961												
Under 20 ..	332	95	6	..	..	..	..	..	..	..	..	433
20-24 ..	1,258	1,546	208	31	8	1	..	..	..	..	1	3,053
25-29 ..	369	859	405	108	15	2	2	..	..	..	1	1,761
30-34 ..	74	228	192	128	41	14	4	..	1	..	1	683
35-39 ..	13	85	75	68	61	23	6	..	..	..	..	331
40-44 ..	3	23	24	37	41	24	3	1	..	..	..	156
45-49 ..	1	7	9	17	15	12	14	4	2	..	..	81
50-54 ..	..	1	2	5	8	10	10	10	..	..	..	46
55-59 ..	..	..	1	1	3	6	4	9	8	..	..	32
60 and over ..	..	1	..	..	..	3	1	4	5	5	..	19
Not stated ..	..	..	..	..	..	..	..	..	..	..	78	78
Total Wives	2,050	2,845	922	395	192	95	44	28	16	5	81	6,673

**1962**

Under 20 ..	332	100	8	1	1	..	..	..	..	..	..	442
20-24 ..	1,330	1,662	241	34	3	2	..	..	..	..	..	3,272
25-29 ..	373	942	480	118	25	4	2	..	..	..	2	1,946
30-34 ..	81	281	200	123	42	12	..	1	..	..	1	741
35-39 ..	22	78	89	98	59	31	2	1	..	..	..	380
40-44 ..	2	22	30	51	43	38	13	..	1	..	..	201
45-49 ..	2	8	7	13	18	24	14	5	..	..	..	90
50-54 ..	1	2	4	7	13	5	13	7	3	..	..	55
55-59 ..	1	..	2	1	1	7	5	9	1	1	..	28
60 and over ..	..	..	1	..	..	2	3	7	5	9	..	27
Not stated ..	..	..	1	..	1	..	..	..	..	..	36	38
<b>Total Wives</b>	<b>2,144</b>	<b>3,095</b>	<b>1,063</b>	<b>446</b>	<b>206</b>	<b>125</b>	<b>52</b>	<b>30</b>	<b>10</b>	<b>10</b>	<b>39</b>	<b>7,220</b>

(x) *Ages of Husband and Wife at Time of Dissolution of Marriage.* The following table shows the number of husbands and wives in each age group who were parties to marriages dissolved in 1961 and 1962. Age is taken at the time the decree absolute is made.

**DISSOLUTIONS: AGES OF PARTIES AT TIME OF DISSOLUTION OF MARRIAGE, AUSTRALIA**

Age of husband (years)	Age of wife (years)											Total husbands
	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60 and over	Not stated	
1961												
Under 20 ..	1	1	..	..	..	..	..	..	..	..	..	2
20-24 ..	7	108	16	2	..	..	..	..	..	..	..	133
25-29 ..	6	300	435	59	8	3	..	..	..	..	1	812
30-34 ..	..	80	566	576	118	12	1	2	..	..	1	1,356
35-39 ..	..	17	162	500	494	99	19	3	..	..	..	1,294
40-44 ..	..	4	36	139	343	361	76	17	1	..	..	977
45-49 ..	..	..	9	38	136	289	276	51	9	6	..	814
50-54 ..	..	..	4	16	45	101	211	155	25	10	1	568
55-59 ..	..	..	..	5	8	33	71	107	81	19	..	324
60 and over ..	..	..	..	2	4	12	30	30	79	156	..	313
Not stated ..	..	..	..	..	..	..	..	..	..	..	80	80
Total Wives	14	510	1,228	1,337	1,156	910	684	365	195	191	83	6,673

1962

Under 20 ..	..	..	..	..	..	..	..	..	..	..	..	..
20-24 ..	12	106	17	2	..	..	..	..	..	..	..	137
25-29 ..	5	298	445	54	10	1	1	..	..	..	..	814
30-34 ..	..	94	494	579	88	12	4	..	..	..	..	1,271
35-39 ..	..	20	149	524	548	115	20	6	..	..	1	1,383
40-44 ..	..	3	32	141	465	389	86	15	2	1	..	1,134
45-49 ..	..	..	9	45	152	328	307	66	9	3	1	920
50-54 ..	..	1	4	9	57	125	253	182	40	6	1	678
55-59 ..	..	..	..	8	11	39	98	149	112	36	..	453
60 and over ..	..	..	1	1	6	9	27	58	77	213	..	392
Not stated ..	..	..	..	1	..	1	..	..	..	..	36	38
<b>Total Wives</b>	<b>17</b>	<b>522</b>	<b>1,151</b>	<b>1,364</b>	<b>1,537</b>	<b>1,019</b>	<b>796</b>	<b>476</b>	<b>240</b>	<b>259</b>	<b>39</b>	<b>7,220</b>

(xi) *Duration of Marriages Dissolved and Number of Children.* The following table shows the number of dissolutions of marriage granted in 1961 and 1962, classified according to the legal duration of the marriage (i.e., the period from the date of marriage to the date when the decree *nisi* was made absolute) and number of children.



### DURATION OF MARRIAGES DISSOLVED AND NUMBER OF CHILDREN(a): AUSTRALIA

Duration of marriage (years)		Dissolutions of marriages with—											Total dissolutions of marriages	Total children (a)
		No children	1 child	2 children	3 children	4 children	5 children	6 children	7 children	8 children	9 children	10 children		
1961														
1 year and under	2..	19	..	..	..	..	..	..	..	..	..	..	19	..
2 years and under	3..	47	10	..	1	..	..	..	..	..	..	..	58	13
3 "	4..	86	35	5	..	..	..	..	..	..	..	..	126	45
4 "	5..	175	79	20	1	3	..	..	..	..	..	..	278	134
5 "	6..	231	115	34	6	..	..	..	..	1	..	..	387	209
6 "	7..	193	120	49	10	4	..	..	..	..	..	..	376	264
7 "	8..	187	138	61	16	3	..	..	..	..	..	..	405	320
8 "	9..	146	107	82	27	4	1	..	..	..	..	..	368	379
9 "	10..	130	128	96	27	8	3	..	..	..	..	..	392	448
10 "	11..	123	90	94	40	10	4	1	..	..	..	..	362	464
11 "	12..	142	85	86	45	13	3	1	..	..	..	..	375	465
12 "	13..	96	86	85	36	14	4	1	..	..	..	..	322	446
13 "	14..	105	89	81	47	15	7	1	..	..	..	..	345	493
14 "	15..	82	79	78	34	11	3	1	1	..	..	..	289	409
15 "	16..	52	60	77	50	11	4	2	..	..	..	..	256	440
16 "	17..	37	49	76	36	11	4	4	1	1	..	..	219	412
17 "	18..	40	45	48	36	8	8	..	1	..	..	..	186	328
18 "	19..	28	51	46	29	10	5	..	..	1	..	..	170	303
19 "	20..	50	47	55	29	15	3	1	1	..	..	..	201	332
20 "	21..	47	43	51	31	10	5	2	..	..	..	..	189	315
21 "	25..	146	137	174	82	31	13	4	4	2	1	..	594	997
25 "	30..	160	82	71	33	14	6	3	2	..	..	..	371	441
30 "	35..	124	30	15	13	2	2	1	2	..	..	..	189	137
35 "	40..	77	10	6	7	4	3	2	1	..	..	..	110	93
40 "	45..	40	2	5	4	1	1	..	..	1	..	..	54	41
45 .. and over	..	25	..	3	1	2	..	..	..	..	..	..	31	17
Not stated	..	1	..	..	..	..	..	..	..	..	..	..	1	..
Total Dissolutions of Marriage	..	2,589	1,717	1,398	641	204	79	25	13	6	1	..	6,673	..
Total Children (a)	..	..	1,717	2,796	1,923	816	395	150	91	48	9	..	..	7,945
1962														
1 year and under	2..	15	2	..	1	..	..	..	..	..	..	..	18	5
2 years and under	3..	33	7	2	1	..	..	..	..	..	..	..	43	14
3 "	4..	86	25	8	1	1	..	..	..	..	..	..	121	48
4 "	5..	164	85	15	1	..	1	..	..	..	..	..	266	123
5 "	6..	205	144	38	10	..	..	..	..	..	..	..	397	250
6 "	7..	183	137	63	4	2	1	..	..	..	..	..	390	288
7 "	8..	179	104	64	23	4	1	..	1	..	..	..	376	329
8 "	9..	153	131	66	16	4	..	..	..	..	..	..	370	327
9 "	10..	124	127	67	25	11	2	..	..	..	..	..	356	390
10 "	11..	156	107	97	39	6	5	2	..	..	..	..	412	479
11 "	12..	111	111	97	36	14	3	2	..	..	..	..	374	496
12 "	13..	109	88	96	36	15	2	2	1	..	..	..	349	477
13 "	14..	98	93	81	36	16	3	1	..	..	..	..	328	448
14 "	15..	95	78	95	43	17	6	1	..	..	..	..	335	501
15 "	16..	74	76	83	49	13	7	..	..	1	..	..	304	493
16 "	17..	59	77	82	63	27	6	1	1	1	..	..	317	589
17 "	18..	43	53	65	42	19	2	3	..	..	..	..	227	413
18 "	19..	53	33	34	35	22	3	5	..	..	..	..	185	339
19 "	20..	47	43	54	31	8	5	4	1	..	..	..	193	332
20 "	21..	57	59	53	38	20	4	2	2	..	..	..	235	405
21 "	25..	182	145	174	94	30	11	10	..	1	1	..	648	1,027
25 "	30..	235	113	64	28	8	6	3	1	..	..	..	458	412
30 "	35..	188	49	16	8	3	3	..	1	..	..	..	268	139
35 "	40..	112	6	4	3	1	1	..	1	..	..	..	128	39
40 "	45..	61	2	2	1	1	..	..	..	..	..	..	67	13
45 .. and over	..	50	2	1	..	1	..	..	..	..	..	..	54	8
Not stated	..	1	..	..	..	..	..	..	..	..	..	..	1	..
Total Dissolutions of Marriage	..	2,873	1,897	1,421	664	243	72	36	9	3	2	..	7,220	..
Total Children (a)	..	..	1,897	2,842	1,992	972	360	216	63	24	18	..	..	8,384

(a) The term "children" used in the Commonwealth legislation refers to living "children of the marriage" under 21 years. However, as the majority of the dissolutions in this period were granted to petitions lodged under old legislation, it has not been possible to make the data in the table above conform exactly to this definition. For instance, New South Wales, Victoria, Queensland and Western Australia included children whether living or dead; and only Queensland included adopted children.

(xii) *Ages of Children of Dissolved Marriages.* The following table shows the ages of children of marriages dissolved in 1961 and 1962. The children referred to are only those under 21 years of age at the time of petition.

**CHILDREN OF DISSOLVED MARRIAGES(a) BY AGE AT TIME OF PETITION:  
AUSTRALIA**

Petitioner	Age of children at time of petition—																		Total number of children
	Under 12 mths	1 yr	2 yrs	3 yrs	4 yrs	5 yrs	6 yrs	7 yrs	8 yrs	9 yrs	10 yrs	11 yrs	12 yrs	13 yrs	14 yrs	15 yrs	16-20 yrs	Not stated	
1961																			
Husband ..	19	20	56	92	98	149	151	172	155	160	153	130	116	131	102	92	345	1,153	3,294
Wife ..	19	51	73	120	184	202	234	209	209	218	173	198	167	177	168	128	428	1,691	4,649
Both ..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	2
Total ..	38	71	129	212	282	351	386	381	364	378	326	328	283	309	270	220	773	2,844 (b)	7,945
1962																			
Husband ..	17	60	91	149	197	214	216	216	232	220	166	203	145	186	154	532	409	3,623	
Wife ..	26	56	113	224	242	250	310	303	305	292	286	266	256	230	255	218	645	481	4,758
Both ..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	3
Total ..	43	116	204	373	439	464	526	519	522	525	507	432	459	375	441	372	1177	890	8,384

(a) This table refers to children, under 21 years at time of petition, of marriages for which decrees absolute for dissolution have been granted in 1961 and 1962. (b) Includes mainly children in respect of petitions for dissolution of marriage lodged under the superseded matrimonial causes laws of the States which did not, in all cases, require this information to be supplied. Most of the not stated cases refer to dissolutions in New South Wales.

(xiii) *Number of Divorced Persons at each Census, 1911 to 1961.* The following table shows the number and proportion of divorced persons in Australia as recorded from returns supplied at each census from 1911 to 1961. A classification of divorced persons by age, for the censuses from 1891 to 1947, appeared in earlier issues of the Official Year Book (see No. 39, p. 269). Prior to 1911, no record was made of divorced persons in South Australia, so comparisons cannot be made beyond that date.

**DIVORCED PERSONS AT CENSUS DATES: AUSTRALIA**

Sex	Number						Proportion per 10,000 of males or females, 15 years of age and over					
	1911	1921	1933	1947	1954	1961	1911	1921	1933	1947	1954	1961
Males ..	2,368	4,233	10,298	25,052	32,389	38,641	15	23	42	89	100	105
Females ..	2,140	4,304	10,888	27,516	36,650	43,339	15	24	46	96	115	119

3. *Bankruptcy.*—(i) *General.* Particulars relating to bankruptcy in each State to the end of 1927 were incorporated in issues of the Official Year Book prior to No. 23. On 1st August, 1928, the *Commonwealth Bankruptcy Act*, which is now the *Bankruptcy Act 1924-1960*, came into operation.

Under the *Bankruptcy Act* 1924–1960, the Commonwealth is divided into bankruptcy districts which coincide generally with State boundaries. A Federal Court of Bankruptcy has been established with jurisdiction throughout Australia, but it exercises this jurisdiction mainly in the bankruptcy districts of New South Wales, which includes the Australian Capital Territory, and Victoria. Certain State courts have been invested with federal jurisdiction in bankruptcy and, outside New South Wales and Victoria, usually exercise that jurisdiction in the appropriate bankruptcy district.

Any person unable to pay his debts may apply voluntarily for the sequestration of his estate, or his creditors may apply for a compulsory sequestration, if he has committed an act of bankruptcy. The act of bankruptcy usually relied on is non-compliance by a debtor with a bankruptcy notice which requires the debtor to whom it is addressed to pay within a specified time, to a creditor who has obtained a final judgment or order to pay, the amount of the debt, or satisfy the Court that he has a counter claim, set-off, or cross demand which equals or exceeds the judgment debt. If a bankruptcy notice is not complied with, a creditor may thereupon present a petition against a debtor, provided that—the debt or debts amount to £50; the act of bankruptcy relied on has occurred within the six months preceding the presentation of the petition; and the statutory requirements relating to domicile or residence are applicable to the debtor.

Upon the issue of a sequestration order, the property of the bankrupt vests in the official receiver named in the order, and his property is divisible among his creditors in accordance with the provisions of the Act. No creditor to whom the bankrupt is indebted in respect of any debt provable in bankruptcy has any remedy against the property or person of the bankrupt except by leave of the court.

Under Part XI. of the *Bankruptcy Act* 1924–1960, instead of having a sequestration order made against his estate, a debtor may compound with his creditors or assign his estate for their benefit. Under Part XII of the Act, a debtor may enter into a scheme of arrangement. The object of Parts XI and XII of the Act is to allow a debtor and his creditors to enter into an agreement concerning the debts due to the creditors without having a sequestration order made against the debtor.

The Court has power to decide questions of law affecting a bankrupt estate. Questions of fact may be tried before a jury.

The *Bankruptcy Act* 1924–1960 provides for an Inspector-General in Bankruptcy, and for a Registrar and an Official Receiver to be appointed for each bankruptcy district.

A Registrar in Bankruptcy is controlled by the Court and has such duties as the Attorney-General of the Commonwealth directs, or as are prescribed, and exercises such functions of an administrative nature as are authorized by the Court. He may examine a bankrupt or a person indebted to a bankrupt or having in his possession any of the estate or effects of a bankrupt. Stipendiary magistrates are appointed Deputy Registrars in country districts.

All sequestrated estates are vested in an Official Receiver, who is a permanent officer of the Commonwealth Public Service. His duties are to investigate the conduct, property and transactions of the debtor, and the cause of bankruptcy of a debtor, and to realize and administer the estate of the debtor. In respect of these activities, the Official Receiver is under the control of the Court.

Persons registered by the Court as qualified to act as trustees may be appointed by resolution of the creditors to be trustees of estates. In cases where a registered trustee under a deed of arrangement, composition, or assignment (Parts XI and XII of the *Bankruptcy Act*) is removed from or vacates his office, the official receiver may be appointed by the Court to complete the administration of the estate, or the Court may direct the official receiver to convene a meeting of the creditors in the estate to enable them to appoint a registered trustee to complete the administration of the estate.

(ii) *Bankruptcy Proceedings.* The following table shows the number of bankruptcies of the various types in each State, together with the assets and liabilities of the debtors, during the twelve months ended 30th June, 1962.

## BANKRUPTCY PROCEEDINGS, 1961-62

State or Territory		Sequestration orders and orders for administration of deceased debtors' estates	Compositions and schemes under Part XI	Deeds under Part XI	Deeds of arrangement, Part XII	Total
N.S.W. (a)	Number ..	795	5	2	63	865
	Liabilities £	2,618,918	74,902	31,220	534,981	3,260,021
	Assets £	1,524,773	48,535	17,890	470,257	2,061,455
Vic. ..	Number ..	441	16	1	129	587
	Liabilities £	1,415,676	180,961	6,490	803,302	2,406,429
	Assets £	144,426	152,684	10,416	696,297	1,003,823
Q'land	Number ..	259	5	..	21	285
	Liabilities £	1,132,116	42,349	..	146,049	1,320,514
	Assets £	1,042,373	31,401	..	98,782	1,172,556
S. Aust.	Number ..	504	63	14	..	581
	Liabilities £	1,249,986	453,771	52,259	..	1,756,016
	Assets £	593,334	410,862	47,255	..	1,051,451
W. Aust.	Number ..	141	83	12	2	238
	Liabilities £	289,694	326,280	137,219	110,089	863,282
	Assets £	88,217	229,911	100,510	73,685	492,323
Tas. ..	Number ..	93	..	2	3	98
	Liabilities £	253,503	..	10,608	42,060	306,171
	Assets £	100,901	..	17,689	45,828	164,418
N.T. ..	Number ..	6	..	..	..	6
	Liabilities £	28,417	..	..	..	28,417
	Assets £	9,827	..	..	..	9,827
Australia	Number ..	2,239	172	31	218	2,660
	Liabilities £	6,988,310	1,078,263	237,796	1,636,481	9,940,850
	Assets £	3,503,851	873,393	193,760	1,384,849	5,955,853

(a) Includes the Australian Capital Territory.

For purposes of comparison, the two tables which follow show Australian figures in respect of each of the various types of bankruptcy, and State figures in respect of all types of bankruptcy for the past five years.

## BANKRUPTCY PROCEEDINGS: AUSTRALIA

Year		Sequestration orders and orders for administration of deceased debtors' estates	Compositions and schemes under Part XI	Deeds under Part XI	Deeds of arrangement, Part XII	Total
1957-58	Number ..	1,357	120	28	164	1,669
	Liabilities £	3,126,313	707,134	166,367	1,271,353	5,271,167
	Assets £	1,680,868	636,032	107,675	1,315,856	3,740,431
1958-59	Number ..	1,603	131	19	196	1,949
	Liabilities £	4,534,479	608,040	198,730	1,844,512	7,185,761
	Assets £	2,089,842	697,414	145,712	1,594,706	4,527,674
1959-60	Number ..	1,949	119	28	192	2,288
	Liabilities £	5,126,243	529,885	161,978	1,961,335	7,779,441
	Assets £	2,738,689	411,084	176,205	1,531,283	4,857,261
1960-61	Number ..	2,004	118	21	225	2,368
	Liabilities £	5,609,860	424,969	189,434	2,170,643	8,394,906
	Assets £	3,333,274	325,602	196,254	1,665,396	5,520,526
1961-62	Number ..	2,239	172	31	218	2,660
	Liabilities £	6,988,310	1,078,263	237,796	1,636,481	9,940,850
	Assets £	3,503,851	873,393	193,760	1,384,849	5,955,853

## BANKRUPTCY PROCEEDINGS: STATES

Year	N.S.W. (a)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aus- tralia.
1957-58	Number .. 524 Liabilities £ 2,010,218 Assets £ 1,607,587	418 1,021,428 676,021	181 607,109 377,379	263 645,401 375,932	212 793,439 578,097	70 184,552 120,778	1 9,020 4,637	1,669 5,271,167 3,740,431
1958-59	Number .. 745 Liabilities £ 2,683,920 Assets £ 1,661,574	394 1,713,739 952,691	200 832,572 656,757	316 707,481 371,488	206 1,057,664 775,328	88 190,385 109,836	.. .. ..	1,949 7,185,761 4,527,674
1959-60	Number .. 892 Liabilities £ 3,216,889 Assets £ 2,001,621	494 2,019,268 1,182,287	234 725,189 631,121	372 801,093 446,738	199 628,876 412,387	96 373,246 168,030	1 14,880 15,077	2,288 7,779,441 4,857,261
1960-61	Number .. 868 Liabilities £ 3,305,964 Assets £ 2,342,275	489 1,951,320 1,297,881	253 952,715 725,656	468 1,343,854 696,223	206 545,522 327,729	81 287,718 125,340	3 7,813 5,422	2,368 8,394,906 5,520,526
1961-62	Number .. 865 Liabilities £ 3,260,021 Assets £ 2,061,455	587 2,406,429 1,003,823	285 1,320,514 1,172,556	238 1,756,016 1,051,451	98 863,282 492,323	98 306,171 164,418	6 28,417 9,827	2,660 9,940,850 5,955,853

(a) Includes the Australian Capital Territory.

4. **Other Civil Proceedings.**—The following table shows the civil judgments (excluding those for divorce and bankruptcy) in the higher courts during 1961. The particulars given below include the number and amount of judgments entered by default or confession or agreement.

## CIVIL CASES AT HIGHER COURTS, 1961

Particulars	N.S.W. (a)	Vic.	Qld (b)	S.A.	W.A. (c)	Tas.	N.T. (b)	A.C.T.	Total
Judgments No.	4,761	19,076	1,279	309	321	823	n.a.	377	n.a.
Amount awarded £	n.a.	5,560,215	1,482,095	463,695	417,340	n.a.	n.a.	330,427	n.a.

(a) Excludes judgments signed in the Supreme Court.  
(c) Judgments signed and entered.

(b) Year ended 30th June, 1961.

## § 5. High Court of Australia

The High Court of Australia consists of a Chief Justice and six other Justices. Its principal seat is in Melbourne, but sittings are held in every State capital as occasion requires. The High Court has both original and appellate jurisdiction. Its original jurisdiction is usually exercised by a single Justice, appellate jurisdiction by at least three Justices.

The Constitution itself confers original jurisdiction on the High Court in all matters (i) arising under any treaty, (ii) affecting consuls or other representatives of other countries, (iii) in which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party, (iv) between States, or between residents of different States, or between a State and a resident of another State, (v) in which a writ of mandamus or prohibition or an injunction is sought against an officer of the Commonwealth. In addition, Parliament may, under the Constitution, confer additional original jurisdiction on the High Court in certain classes of matters, and has in fact conferred original jurisdiction on the High Court in all matters arising under the Constitution or involving its interpretation and in trials of indictable offences against the laws of the Commonwealth. In matters (i) and (v) and in suits between the Commonwealth and a State or between States, the jurisdiction of the High Court is exclusive of that of the State Courts, and in matters (other than trials of indictable offences) involving any question as to the limits *inter se* of the constitutional powers of the Commonwealth and those of the States, the jurisdiction of the High Court is exclusive of that of the Supreme Courts of the States.

Under the Constitution, the High Court has jurisdiction, with such exceptions and subject to such regulations as the Parliament permits, to hear and determine appeals from all judgments, decrees, orders and sentences of (i) any Justice or Justices exercising the original jurisdiction of the High Court, (ii) any other Federal court or court exercising Federal jurisdiction and (iii) from the Supreme Court or other court of any State from which appeal lay to Privy Council at the establishment of the Commonwealth. In respect of (iii), the Parliament has prescribed that, generally, appeal can be brought only by special leave of the High Court. However, in the case of judgments affecting the status of any person under the laws relating to aliens, marriage, bankruptcy or insolvency, or in respect of any sum or matter at issue, or involving any claim, demand, or question, or to regarding any property or civil right, amounting to or of the value of £1,500, appeal may be brought as of right from final judgments, and by leave of the High Court or the Supreme Court from interlocutory judgments.

By Acts of Parliament and by subordinate legislation, the High Court has also been given appellate jurisdiction in respect of the courts of the Territories under the control of the Commonwealth. Provision is also made in various enactments for appeal to the High Court on points of law from administrative determinations, such as decisions of the Commissioner of Taxation and Taxation Boards of Review, the Commissioner of Patents, or the Registrar of Trade Marks. Such proceedings, although called appeals, are in reality proceedings in the original jurisdiction of the High Court.

The following table shows the transactions of the High Court for 1961 and 1962.

#### TRANSACTIONS OF THE HIGH COURT OF AUSTRALIA

Original jurisdiction(a)	1961	1962	Appellate jurisdiction	1961	1962
Number of writs issued ..	130	92	Number of appeals set down for hearing ..	122	132
Number of cases entered for trial ..	51	51	Number allowed ..	31	36
Judgments for plaintiffs ..	27	30	Number dismissed ..	65	52
Judgments for defendants ..	8	2	Otherwise disposed of ..	31	20
Otherwise disposed of ..	29	36			
Amount of judgments ..	£58,175	£96,588			

(a) Some matters dealt with by the High Court neither originate as writs nor are entered as cases.

During 1961 and 1962, respectively, the High Court dealt also with the following:— appeals from assessments under the Taxation Assessment Act, 39, 49; special cases stated for the opinion of the Full Court, 11, 8; applications for prohibition, etc., 21, 23. The fees collected amounted to £2,952 in 1961 and £3,239 in 1962.

## § 6. Police, Prisons and Prisoners

1. Police.—(i) *General.* The primary duties of the police are to prevent crime, to detect and detain offenders, to protect life and property, to enforce the law, and to maintain peace and good order. In addition, they perform many duties in the service of the State, e.g. they act as clerks of petty sessions in small centres, as crown land bailiffs, foresters, mining wardens and inspectors under the fisheries and various other Acts. In metropolitan and large country areas, they also regulate the street traffic. With the exception of the Commonwealth Police Force (*see* next page) and the police in the Northern Territory and the Australian Capital Territory, the police forces of Australia are under the control of the State governments, but their members perform certain functions for the Commonwealth government, such as acting as aliens registration officers and policing various acts and regulations.

Women police perform special duties at places where young women and girls are subject to moral danger, control traffic at school crossings, and lecture school children on road safety. They also assist male police as required in the performance of normal police duties.

The strength of the police force in each State and Territory and the number of persons to each police officer are shown in the following table for the years 1957 to 1961. The figures include traffic police, probationers, cadets, special constables and women police, but exclude parking police, native trackers (aboriginals employed in outlying districts in tracking lost persons and persons wanted by the police), female searchers, wardresses and interpreters. Figures refer to 30th June, except where otherwise indicated.

## STRENGTH OF POLICE FORCES

30th June—	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia
TOTAL STRENGTH									
1957 .. ..	(a) 5,043	(a) 3,709	2,491	1,234	970	507	80	60	14,094
1958 .. ..	5,130	3,753	2,617	1,351	988	526	76	66	14,507
1959 .. ..	5,245	3,753	2,678	1,425	1,056	524	102	73	14,856
1960 .. ..	5,378	3,867	2,647	1,498	1,142	550	103	77	15,262
1961 .. ..	5,575	4,025	2,673	1,694	1,169	558	105	89	15,888

## POPULATION TO EACH POLICE OFFICER

1957 .. ..	(a) 719	(a) 716	567	708	709	643	263	631	684
1958 .. ..	720	724	550	664	708	633	291	624	678
1959 .. ..	717	742	548	646	674	648	236	631	677
1960 .. ..	713	739	565	631	632	625	248	680	673
1961 .. ..	703	728	568	572	630	628	258	661	661

## NUMBER OF POLICEWOMEN(b)

1957 .. ..	(a) 38	(a) 55	7	24	9	10	..	2	145
1958 .. ..	46	52	9	32	11	9	..	2	161
1959 .. ..	48	50	9	33	12	8	..	2	162
1960 .. ..	54	55	9	34	13	10	..	2	177
1961 .. ..	58	58	9	35	14	10	5	2	191

## NUMBER OF NATIVE TRACKERS(c)

1957 .. ..	(a) 8	(a) 1	23	(d)	3	..	30	..	65
1958 .. ..	7	1	23	(d)	4	..	31	..	66
1959 .. ..	5	1	24	(d)	4	..	35	..	69
1960 .. ..	5	1	18	(d)	4	..	32	..	60
1961 .. ..	5	1	17	(d)	4	..	31	..	58

(a) At 31st December, 1957. (b) Included in total strength shown above. (c) Not included in total strength shown above. (d) One native tracker, who is paid a small weekly retainer and is supplied with rations, is continually on call.

(ii) *The Commonwealth Police Force.* The Commonwealth Police Force commenced operations on 21st April, 1960, and is the principal agency for the enforcement of the laws passed by the Commonwealth Parliament. It is also responsible for the protection of Commonwealth property and interests at various buildings and establishments under the control of the Commonwealth. This force co-ordinates the work of other Commonwealth investigation and law enforcement agencies and acts on behalf of the United Nations Organization for the suppression of traffic in women and the suppression of obscene literature.

Under the control of the force is the Australian Police College at Manly, N.S.W., which provides training for members of various police forces and other agencies in Australia and New Zealand.

The force has District Offices in each Capital City and its Head Office in Canberra. The strength of the force at 30th June, 1962, was 568 policemen and 3 policewomen. Twenty-eight guard dogs were available for use by the force and by State police forces as required.

2. **Prisons and Prison Accommodation.**—The table below shows the number of prisons in each State and the Northern Territory and the accommodation therein at 30th June, 1961.

PRISONS AND PRISON ACCOMMODATION, 1961

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	Australia
Prisons .. .. .	18	11	8	16	19	1	2	75
Accommodation ..	2,912	2,055	929	965	906	381	87	8,235

There is no gaol in the Australian Capital Territory, but there is a lock-up attached to the police station at Canberra, and another lock-up at Jervis Bay, where offenders are held while awaiting trial or serving short sentences not exceeding one week imposed by a Magistrate's Court.

3. **Convicted Prisoners.**—The number of convicted prisoners at 30th June of each of the years 1957 to 1961 and the proportion per 10,000 of the population are shown in the following table.

CONVICTED PRISONERS

30th June—	N.S.W. (a)	Vic.	Q'land (b)	S. Aust. (b)	W. Aust. (b)	Tas. (b)	N.T. (b)	Australia
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## NUMBER

1957 .. .. .	3,050	1,441	680	569	488	162	29	6,419
1958 .. .. .	3,126	1,397	799	526	527	196	32	6,603
1959 .. .. .	2,895	1,539	868	577	477	223	28	6,607
1960 .. .. .	2,903	1,678	865	570	526	195	26	6,763
1961 .. .. .	3,090	1,827	877	592	526	237	41	7,190

## NUMBER PER 10,000 OF POPULATION

1957 .. .. .	8.4	5.4	4.8	6.5	7.1	5.0	13.8	6.7
1958 .. .. .	8.5	5.1	5.6	5.9	7.5	5.9	14.5	6.7
1959 .. .. .	7.7	5.5	5.9	6.3	6.7	6.6	11.6	6.6
1960 .. .. .	7.6	5.9	5.8	6.0	7.3	5.7	10.2	6.6
1961 .. .. .	7.9	6.2	5.8	6.1	7.1	6.8	15.1	6.8

(a) Includes the Australian Capital Territory. Includes short-term prisoners held in lock-ups at police stations. (b) Excludes aboriginals.

## § 7. Patents, Trade Marks and Designs

1. **Patents.**—Patents for inventions are granted under the *Patents Act* 1952–1960, which applies to the Commonwealth of Australia and the Territories of Norfolk Island, Papua and New Guinea. The Act is administered by a Commissioner of Patents. The principal fees payable up to and including the grant of a patent amount to £19 10s. Renewal fees are payable as follows:—£5 before the expiration of the fourth year, and an amount progressively increasing by £1 before the expiration of each succeeding year up to the final fee of £16, payable before the expiration of the fifteenth year. An extension of time for six months for payment of a renewal fee may be obtained.

The number of separate inventions in respect of which applications were filed and the number of letters patent sealed during the years 1958 to 1962 are shown in the following table.



## PATENTS: AUSTRALIA

Particulars	1958	1959	1960	1961	1962
Applications .. ..	10,511	11,430	11,828	12,901	13,026
Applications accompanied by provisional specifications ..	3,919	4,063	3,772	3,919	3,710
Letters patent sealed ..	6,093	5,488	4,857	4,940	3,866

2. *Trade Marks and Designs.*—Under the *Trade Marks Act* 1955–1958 the Commissioner of Patents is also Registrar of Trade Marks. This Act has replaced the *Trade Marks Act* 1905–1948. Provision is made for the registration of users of trade marks and for their assignment with or without the goodwill of the business concerned. A new classification of goods has been adopted and trade marks registered under the repealed Acts are reclassified on renewal.

Under the *Designs Act* 1906–1950, the Commissioner of Patents is also Registrar of Designs.

The following table shows the applications for trade marks and designs received and registered during the years 1958 to 1962.

## TRADE MARKS AND DESIGNS: AUSTRALIA

Particulars	1958	1959	1960	1961	1962
Trade marks—					
Received .. ..	5,331	5,436	6,083	6,209	5,920
Registered .. ..	4,219	3,792	3,203	4,592	3,558
Designs—					
Received .. ..	1,362	1,366	1,283	1,413	1,392
Registered .. ..	1,758	819	1,507	1,522	1,064

## § 8. Copyright

1. *Legislation.*—Copyright is regulated by the *Commonwealth Copyright Act* 1912–1950 wherein, subject to modifications relating to procedure and remedies, the British *Copyright Act* of 1911 has been adopted and scheduled to the Australian law. The Act is administered by the Commissioner of Patents.

Reciprocal protection of unpublished works was extended in 1918 to citizens of Australia and of the United States of America, under which copyright may be secured in the latter country by registration at the Library of Congress, Washington. The Commonwealth government promulgated a further Order in Council which came into operation on 1st February, 1923, and extended the provisions of the *Copyright Act* to the foreign countries of the Copyright Union, subject to the observance of the conditions contained therein.

2. *Applications and Registrations.*—The following table shows under the various headings the number of applications for copyright lodged and registered for the years 1958 to 1962.

## COPYRIGHT: AUSTRALIA

Particulars	1958	1959	1960	1961	1962
Applications lodged—					
Literary .. ..	1,078	1,153	1,042	1,088	1,131
Artistic .. ..	74	65	53	65	31
International .. ..	..	..	..	..	..
Applications registered—					
Literary .. ..	1,100	1,038	916	1,005	1,884
Artistic .. ..	38	47	61	37	52
International .. ..	..	..	..	..	..

## § 9. Cost of Administration of Law and Order

1. *Expenditure by the States.*—The tables below show the net expenditure (i.e., gross expenditure less receipts from fees, fines, recoups for services rendered, etc.) from Consolidated Revenue during 1961–62 in connexion with the administration of justice, police and prisons in each State.

In South Australia, the receipts for legal fees and registrations exceed the expenditure under "Justice". Because of differing legislative and administrative arrangements in the various States, the activities covered by the figures shown are not exactly the same in each State. Small differences also result from differing accounting practices. However, the figures shown for individual States are comparable from year to year.

## NET EXPENDITURE ON LAW AND ORDER, 1961-62

State	Net expenditure			Per head of population		
	Justice	Police	Prisons	Justice	Police	Prisons
	£	£	£	s. d.	s. d.	s. d.
New South Wales ..	1,475,864	8,908,081	1,524,809	7 6	45 2	7 9
Victoria ..	773,750	7,365,756	1,102,880	5 3	49 9	7 5
Queensland ..	259,875	4,654,903	492,854	3 5	61 0	6 5
South Australia ..	—232,663	2,703,973	442,113	—4 9	55 2	9 0
Western Australia ..	102,331	1,905,071	307,635	2 9	51 1	8 3
Tasmania ..	250,240	950,926	224,640	14 0	53 3	12 7
Total ..	2,629,397	26,488,710	4,094,931	4 8	52 7	8 7

2. *Commonwealth Expenditure.*—(i) *Attorney-General's Department.* The expenditure shown in the previous table is that incurred by the State Governments. Since the functions of the Commonwealth Government in the administration of law and order differ considerably from those of the States, precise comparison between Commonwealth and State expenditure in this field is not possible. The following table, however, shows the gross expenditure by the Commonwealth Attorney-General's Department during the year 1961–62 on the main services performed by that department.

EXPENDITURE BY THE COMMONWEALTH ATTORNEY-GENERAL'S DEPARTMENT, 1961-62  
(£)

Particulars	Gross expenditure
Administration .. .. .	323,673
Bankruptcy .. .. .	235,224
Commonwealth Police Force .. .. .	333,084
Court Reporting Branch .. .. .	191,923
Crown Solicitor's Office .. .. .	438,811
High Court .. .. .	169,298
Industrial Court .. .. .	114,811
Industrial Registrar's Branch .. .. .	237,008
Judges' Pensions .. .. .	22,180
Legal Service Bureau .. .. .	60,762
Matrimonial Causes—Grants to organizations .. .. .	51,000
Patents, Trade Marks and Designs .. .. .	519,864
Rent .. .. .	85,617
Repairs and Maintenance .. .. .	21,466
Total .. .. .	2,804,721

In addition, £243,851 was spent by the Attorney-General's Department on capital works and services.

The items of expenditure shown in the table above are gross. Receipts of the Attorney-General's Department for 1961-62 aggregated £946,934, of which revenue on account of Patents, Trade Marks and Designs, and Copyright amounted to £581,662, Bankruptcy £168,787, Court Reporting Branch £142,353, Fees, Fines and Costs of Court £31,323, and Miscellaneous £22,809.

Expenditure and receipts of the Attorney-General's Department for the five years 1957-58 to 1961-62 is shown in the following table.

#### EXPENDITURE BY THE COMMONWEALTH ATTORNEY-GENERAL'S DEPARTMENT

(£)

Year	Gross expenditure	Receipts	Net expenditure
1957-58 .. .. .	1,984,776	516,090	1,468,686
1958-59 .. .. .	2,100,388	572,771	1,527,617
1959-60 .. .. .	2,434,828	670,048	1,764,780
1960-61 .. .. .	2,594,495	812,493	1,782,002
1961-62 .. .. .	2,804,721	946,934	1,857,787

(ii) *Police and Prisons.* Expenditure (other than capital) by the Commonwealth Government on police in the Australian Capital Territory (excluding the Commonwealth Police Force shown above) and police and prisons in the Northern Territory for the five years 1957-58 to 1961-62 is shown in the following table.

#### EXPENDITURE ON POLICE AND PRISONS IN THE NORTHERN TERRITORY AND THE AUSTRALIAN CAPITAL TERRITORY

(£)

Year	Northern Territory	Australian Capital Territory(a)
1957-58 .. .. .	208,099	142,462
1958-59 .. .. .	227,031	137,894
1959-60 .. .. .	262,261	168,952
1960-61 .. .. .	322,763	197,275
1961-62 .. .. .	335,485	215,921

(a) Expenditure on police only. There is no prison in the Australian Capital Territory.

## CHAPTER XVII

### PUBLIC HEALTH

#### STATE GOVERNMENT ACTIVITIES

(Including activities of the Commonwealth Government in the Northern Territory and the Australian Capital Territory)

#### § 1. Public Health Legislation and Administration

1. **New South Wales.**—The Department of Public Health comes under the jurisdiction of the Minister for Health, with an Under-Secretary as Permanent Head of the Department for administrative purposes.

There is a Director-General of Public Health who is Chief Medical Adviser to the Government, *ex officio* President of the Board of Health, Chairman of the Nurses Registration Board, and Director of State Psychiatric Services. In the latter capacity, he is responsible for the administration of the part of the *Mental Health Act* relating to the care and treatment of mental patients.

The Department's activities embrace all matters relating to public health and the greater part of the general medical work of the Government. These include:—(a) Supervision of the work of local authorities (municipal and shire councils) in relation to public health matters connected with the following Acts—*Public Health Act*, *Noxious Trades Act* and *Pure Food Act*; (b) Scientific divisions (Government Analyst, Microbiological Laboratory, Institute of Clinical Pathology and Medical Research, and Division of Occupational Health); (c) Tuberculosis and Epidemiological Divisions; (d) Medical Officers of Health at Sydney, Broken Hill, Newcastle, Wollongong, Bathurst, Tamworth and Lismore; (e) State hospitals and homes and State sanatoria; (f) Mental hospitals; (g) Public hospitals (Hospitals Commission); (h) Maternal and baby welfare (baby health centres); (i) School medical and dental services; and (j) Publicity, nutrition and library services.

2. **Victoria.**—(i) *General.* The Ministry of Health, set up in 1943 for the purpose of promoting the health of the people of the State, combines under the control of one Minister all the health, hospital and associated services either administered directly or supported financially by the Government. The central administration of the Department of Health assists the Minister with the task of co-ordinating the work of a variety of associated bodies as well as carrying out the functions of a headquarters of a Department consisting of four branches—the General Health Branch, the Maternal and Child Welfare Branch, the Tuberculosis Branch and the Mental Hygiene Branch. The functions of these branches are described below.

(ii) *The General Health Branch.* This branch, which, *inter alia*, is the administrative branch for the Commission of Public Health, protects or promotes the health of the community in the following ways.

The Engineering Division scrutinizes from a public health point of view the plans of all public buildings and provincial sewerage installations and makes periodical inspections. Other activities include prevention of air pollution from industrial sources, prevention of stream pollution and supervision of abattoirs and cattle sale yards.

The Poliomyelitis Division provides a comprehensive orthopaedic, physiotherapy and respirator service for all eligible patients and carries out rehabilitation in conjunction with the Commonwealth Government. Facilities developed for poliomyelitis are now being used for other neurological disorders. The Division is also concerned with the Salk immunization campaign being undertaken in Victoria. Through the municipalities, immunization against poliomyelitis, diphtheria, smallpox, whooping cough, and tetanus is encouraged and supervised.

Prevention and control of infectious diseases are functions of this Branch, which also sponsors original research into virus diseases and epidemiological investigations throughout Victoria.

The Venereal Diseases Division provides a centrally situated headquarters where the use of modern remedies is effecting a general improvement in the standard of treatment.

Standards of quality and purity of foods and drugs are fixed by the Food Standards Committee and are administered and enforced by both departmental and municipal health inspectors.

Investigations into occupational hazards to the health of workers, the treatment and incidence of occupational diseases, and research into the effects of toxic substances used in industry are conducted by the Industrial Hygiene Division.

Subsidies are granted to municipalities to provide meals for pensioners, to clubs for elderly citizens, and to emergency housekeeper services.

Other services operated by the Branch are:—registering plumbers and gasfitters; providing free travel to hospital for people with limited incomes; analysing food, drink, water and sewerage effluents; registering cinematograph operators; administering the *Cemeteries Acts*; and advising industry on health hazards associated with handling radio-active substances.

(iii) *The Maternal and Child Hygiene Branch.* This branch is concerned with pre-natal hygiene, the development of pre-school services, and the school medical and dental services.

(iv) *The Tuberculosis Branch.* The Tuberculosis Branch is concerned with the prevention of tuberculosis and the treatment and rehabilitation of tubercular patients.

(v) *The Mental Hygiene Branch.* This Branch is controlled by the Mental Health Authority and consists of institutions for in-patient care and out-patient's clinics and other services necessary for a comprehensive community mental health programme. Since the appointment of the Authority in 1951, existing buildings have been remodelled and new ones provided. Services have been re-organized to conform with modern requirements.

3. *Queensland.*—(i) *General.* The *Health Acts 1937 to 1962* are administered by the Director-General of Health and Medical Services subject to the Minister for Health and Home Affairs. A central staff controls the following divisions.

(a) *Division of Public Health Supervision.* This Division is controlled by the Deputy Director-General of Health and Medical Services, and comprises separate sections of communicable disease control, environmental sanitation, food and drug control, enthetic (venereal) diseases, hookworm control and Hansen's disease (leprosy) control. Free treatment of venereal diseases is offered at the Department's clinics in Brisbane and at any public hospital. Free immunization against poliomyelitis, diphtheria, whooping cough and tetanus is offered by most of the local authorities. The majority of school children have been immunized against diphtheria, whooping cough, tetanus and poliomyelitis.

(b) *Division of Tuberculosis.* A central chest clinic in Brisbane offers Mantoux tests; X-ray examinations, and inoculations of Mantoux negative reactors free of charge, and this service is extensively used. Similar clinics are situated at the Cairns, Rockhampton, Thursday Island, Toowoomba, and Townsville district hospitals. Children in the final grade of primary schools are Mantoux-tested and given B.C.G. vaccine. The compulsory X-ray examination of all persons over the age of 14 years is proceeding. The survey of residents of the metropolitan area, now being done, and of the near south-west of the State will complete the campaign.

(c) *Division of Industrial Medicine.* The services of this Division are available both to industry and to the trade union movement, for the prevention of industrial hazards. This division is particularly interested in occupational diseases, such as silicosis and lead and other poisoning, and advises on industrial problems such as lighting, ventilation, fatigue, air pollution and the use of radio-active isotopes.

(d) *Division of Maternal and Child Welfare.* This Division offers supervision and advice on the rearing and health of infants and pre-school children at 251 baby health centres throughout the State. Outlying centres are visited by air or by special rail car. Homes for in-patient treatment of infants with feeding problems have been established at Brisbane, Toowoomba, Ipswich and Rockhampton.

(e) *Division of School Health Services.* This Division comprises the Chief Medical Officer, School Health Services, and a staff of doctors, dentists and visiting school nurses. Every child has a medical examination at least once in three years.

(f) *Division of Mental Hygiene.* The Director is responsible for the care and treatment of mentally sick patients in the State's four mental hospitals at Brisbane, Toowoomba, Ipswich and Charters Towers. In addition to a separate clinic at Brisbane, psychiatric services are available at Brisbane, Townsville, Rockhampton and Toowoomba Public Hospitals. There is also an epileptic home at Toowoomba.

(g) *Division of Welfare and Guidance.* Clinics for the diagnosis and management of behaviour disorders in children have been set up in the Greater Brisbane Area, and further clinics are planned for Townsville and Toowoomba. This service is extensively used. The Wilson Youth Hospital has been opened for the social and psychiatric rehabilitation of boys convicted in the Children's Court. About 40 boys can be accommodated.

(h) *Division of Laboratory Services.* Two laboratories—the Laboratory of Microbiology and Pathology and the Government Chemical Laboratory—are maintained to ensure the purity of a wide range of foodstuffs and materials. The former also offers a service in clinical pathology to institutions, country hospitals and private doctors, and provides a medico-legal service for the whole State. The Institute of Forensic Pathology is controlled by the medical staff of the Laboratory of Microbiology and Pathology, and coroners' autopsies are conducted there.

(ii) *Hospitals.* All public hospitals operate under the district system, which provides for the constitution of hospitals regions and hospitals districts, and a hospitals board for each district. The State is divided into 11 hospitals regions with a base hospital for each region. Each region comprises a number of hospitals districts, the purpose of the regional scheme being to co-ordinate the public hospitals in the region with the base hospital. The administration of the hospital services, including public dental services, in each hospitals district is vested in the hospitals board, which comprises not less than four members or more than eight members appointed by the Governor-in-Council, and one member elected by the component local authorities. During the year 1960–61, there were 57 hospitals boards controlling 132 public hospitals. In addition, six other hospitals received aid from the Government, and an institution for the treatment of Hansen's disease in aboriginals was maintained at Fantome Island near Townsville. Other persons suffering from this disease are treated at an annexe of the Princess Alexandra Hospital, South Brisbane.

4. *South Australia.*—The Department of Public Health embraces the activities of the Central Board of Health, the Food Drugs Advisory Committee, the Radiological Advisory Committee, the School Health Services (comprising School Medical and Dental Services and Deafness Guidance Clinic), Poliomyelitis Services and the public health aspect of the control of tuberculosis, including the State X-ray Health Survey and the Chest Clinic.

The Central Board of Health consists of five members, three of whom (including the chairman) are appointed by the Governor, while one is elected by metropolitan local boards and one by all other local boards. The Central Board of Health administers the *Health, Food and Drugs, Dangerous Drugs, Noxious Trades, Bakehouses Registrations and Early Notification of Birth Acts*. The Board is also concerned to some degree with Acts relating to local government, abattoirs and cremation. Other legislation administered by the Department of Public Health relates to venereal diseases and vaccination.

The *Health Act 1935–1961* constitutes every municipal council and every district council a local board of health for its municipality or district. There are 142 local boards under the general control and supervision of the Central Board. Under the *Food and Drugs Act* each local board is constituted the local authority for its respective district except in the metropolitan area, for which the Metropolitan County Board is the local authority.

5. *Western Australia.*—Health services are provided under the *Health Act 1911–1962*. The central authority is the Department of Public Health, controlled by a Commissioner, who must be a qualified medical practitioner. The State is divided into local government areas, each administered by a municipal council. All local government authorities have health administration powers.

In any emergency, the Commissioner may exercise all the powers of a health authority in any part of the State.

Features of legislation since 1947 are as follows:—(a) Act No. 70 of 1948 gives power to control sufferers from tuberculosis and establishes a Tuberculosis Control Branch; (b) Act No. 11 of 1952 gives wide powers to regulate the sale and use of pesticides; (c) Act No. 34 of 1954 provides for the licensing of manufacturers of therapeutic substances; (d) Act No. 21 of 1957 gives power to require the notification of any prescribed condition of health in addition to infectious diseases; (e) Act No. 17 of 1956 gives local authorities power to provide or subsidize centres for the accommodation and care of the aged; (f) Act No. 30 of 1958 provides for the establishment of the Health Education Council with the object of promoting and improving the health of the people of Western Australia; (g) Act No. 43 of 1958 provides for the establishment of the Cancer Council of Western Australia with the objects of co-ordinating, promoting and subsidizing cancer research; (h) Act No. 23 of 1960 establishes a Maternal Mortality Committee to investigate each maternal death and to recommend preventive measures; and (i) Act No. 33 of 1962 empowers medical practitioners to give blood transfusions to minors despite parental objections, where life is endangered.

**6. Tasmania.**—The Department of Health Services is under the jurisdiction of the Minister of Health. The Department consists of a Headquarters and three Divisions. The Director-General of Health Services is the permanent head of the Department, and he administers the Department through Directors of each of the three divisions (Division of Public Health, Division of Mental Health, and Division of Tuberculosis) and through several other clinical directors and other senior officers attached to the headquarters of the Department, including the Directors of Orthopaedics, Pathology and Anaesthetics, and the Government Analyst and Chemist.

In addition to his responsibility for the functioning of the Department as a whole, the Director-General of Health Services administers directly the various branches of the work performed by headquarters. They are concerned particularly with the following:—(a) the administration of the Hospital Services throughout the State, (b) the District Medical Service, (c) the Hospital and Government Nursing Service, which includes the administration of 25 District Nursing Centres throughout the State, (d) legislation concerned with Health and allied matters, the Nurses' Registration Board and the Dental Mechanics' Registration Board, (e) the National Fitness Council and Handicapped Children's Advisory Council, (f) Specialist Medical Services, (g) statistical classification of Diseases and Injuries, (h) liaison with other States and the Commonwealth Health Department; and (i) all matters dealing with the maintenance of departmental property and the appointments and salaries of departmental staff.

The Division of Public Health is responsible for the oversight of those services (except those specifically related to tuberculosis) which aim at the attainment and maintenance of good physical health in the community. It controls the school health services (both medical and dental) and the child health service. It supervises the immunization campaigns conducted by local health authorities and is responsible for custody of poliomyelitis vaccine and maintenance of records of its use. The Division also sets standards of food quality and of environmental sanitation, which are policed in detail by local health authorities. The Division administers laws relating to standards of food, drugs, and food premises, and to environmental sanitation, public buildings, infectious disease (other than tuberculosis), and cremation.

The Division of Mental Health provides a community psychiatric service. This includes a mental hospital and a neurosis hospital; institutional care for mental defectives, alcoholics, and sexual offenders; and a community psychiatric service on a regional basis covering the whole state. In addition, the Division administers the *Mental Hospitals Act* and the *Mental Deficiency Act* and provides a State-wide service for the supervision of mental defectives in the community.

The Tuberculosis Division is concerned with the prevention (including B.C.G. vaccination), detection, notification, examination and treatment of all forms of tuberculosis and the maintenance of chest hospitals and diagnostic clinics.

**7. Northern Territory.**—The Commonwealth Department of Health provides health services in the Northern Territory which include hospital, medical and dental services.

Four general hospitals have been established. The Darwin Hospital has accommodation for 284 in-patients, Alice Springs Hospital 130, Katherine Hospital 36, and Tennant Creek Hospital 31. The treatment of Hansen's disease (leprosy) is carried out at East Arm

Settlement. A full range of ancillary services is available at the Darwin hospital, which serves as a base hospital for the Territory. Dental clinics have been set up at Darwin and Alice Springs.

Medical and dental services to outback areas are provided by road and air. The Department of Health has two De Havilland Dove aircraft stationed at Darwin, and one at Alice Springs. They are staffed and serviced by Trans-Australia Airlines and are extensively used in ambulance and survey medical work. At Alice Springs, medical officers of the Department of Health provide the medical services to the Royal Flying Doctor Service (South Australian) base.

A section of the Department of Health undertakes continuous investigation into native health.

School doctors and dentists travel throughout the Territory to carry out diagnosis and treatment. Public health services are provided, and health inspectors visit all settlements periodically.

**8. Australian Capital Territory.**—The *Public Health Ordinance* 1928–1951 places under the control of the Minister for Health all matters relating to public health and hygiene in the Australian Capital Territory. A medical Officer of Health and a number of Health Inspectors are appointed to administer and police this ordinance. The Canberra Community Hospital is administered, subject to the Minister for Health, by a board consisting of five elected members and three members appointed by the Minister. The hospital has accommodation for 305 in-patients. A district nursing service, administered by the Commonwealth Department of Health, was established in 1950 to provide a home-nursing service for the sick and aged. The service is available at the request of a registered doctor.

## § 2. Supervision and Care of Infant Life

**1. General.**—Because the health of mothers and infants depends largely on pre-natal attention as well as after-care, government and private organizations provide instruction and treatment for mothers before and after confinement. The health and well-being of mother and child are looked after by baby health centres, baby clinics, crèches, etc.

In all States, Acts have been passed with the object of supervising the conditions of infant life and reducing the rate of mortality. Departments control the boarding-out of the wards of the State to suitable persons. Wherever possible, the child is boarded out to its mother or to a near female relative. Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons, while special attention is devoted to the welfare of ex-nuptial children.

Under the provisions of Part V. of the *Social Services Act* 1947–1961, a sum of £15 is payable to the mother in respect of each confinement at which a living or viable child is born if the mother has no other children under 16 years of age. Where there are one or two other children under 16, the amount payable is £16, and where there are three or more other children under 16, the amount payable is £17 10s. Where more than one child is born at a birth, the amount of the allowance is increased by £5 in respect of each additional child born at that birth. More detailed information concerning maternity allowances is given in Chapter XV. Welfare Services.

Information regarding infant mortality will be found in Chapter X. Vital Statistics (see page 380).

**2. Nursing Activities.**—Several State Governments maintain institutions which provide treatment for mothers and children, and, in addition, subsidies are granted to various associations engaged in welfare work.

(i) *Baby Health Centres.* The following table gives particulars of the activities of Baby Health Centres for the year 1962. The figures relate to all centres, whether permanently staffed or on a temporary or part-time basis. Centres may be located at accommodation specially provided for this purpose or at halls, schools, etc.



## BABY HEALTH CENTRES, 1962

Particulars	N.S.W.	Vic.	Q'land (a)	S. Aust. (a)	W. Aust.	Tas.	N.T.	A.C.T.	Aus- tralia
Number of centres	393	647	251	247	73	103	13	22	1,749
Attendances at centres ..	1,151,766	1,392,999	467,248	253,034	237,300	133,917	15,499	37,843	3,689,606
Visits by nurses to homes ..	(b)	159,303	(b)	31,899	23,959	76,067	4,979	4,645	(b)

(a) Year ended 30th June, 1962.

(b) Not available.

Mobile units are used as centres in some States. The number of these in 1962, included in the above table, were as follows:—Victoria, 6; Queensland, 1; South Australia, 3; Western Australia, 4; and Tasmania, 11.

In the last thirty years, the number of attendances at the Baby Health Centres has quadrupled. The number of attendances, at five-year intervals, since 1930 were as follows:—1930, 919,893; 1935, 1,355,306; 1940, 2,035,299; 1945, 2,927,764; 1950, 3,049,375; 1955, 3,099,233; and 1960, 3,480,203. During the year 1962, the number of attendances was 3,689,606.

(ii) *Bush Nursing Associations.* Treatment for mothers and children is also provided by the Bush Nursing Associations.

The number of centres maintained by the Associations in 1962 were:—New South Wales, 21; Victoria, 56; Queensland, 6; South Australia, 31; Western Australia, 11; and Tasmania, 25.

## § 3. Medical Inspection of School Children

1. *General.*—Medical and dental inspection of school children is carried out in all States, in the Northern Territory, and in the Australian Capital Territory. In some States, travelling clinics have been established to deal with dental defects.

2. *New South Wales.*—(i) *School Medical Service.* Doctors of the School Medical Service examine children attending all schools administered by the Department of Education and the majority of other schools in the State. They make annual visits to schools in the metropolitan, Newcastle and Wollongong areas, and in Armidale, Bathurst, Lismore and district, Grafton and district, and Cootamundra, and examine children in kindergarten or 1st grade in primary schools and 2nd year in secondary schools. Children in 4th grade in primary schools and 4th year in secondary schools are reviewed. Children in other classes are examined or reviewed as necessary.

In country areas, school children are examined by local medical practitioners according to the normal practice of the School Medical Service and under the supervision of local Municipal and Shire Councils. During the first examination, all children at these schools are examined, and following that, the same procedure is adopted as in the metropolitan area. This scheme is growing and the majority of Councils in New South Wales have expressed interest and are endeavouring to arrange with local medical practitioners to have the scheme introduced. If treatment is necessary, the parent is informed and, if possible, is called in for interview. In the metropolitan, Newcastle, Wollongong, Lismore and Grafton areas, school nurses follow up these cases with the object of persuading parents to seek medical advice for the children.

As well as examining school children, the medical officer examines the sanitary arrangements at each school. Bush nurses act as school nurses in schools at or near the bush nursing centres. Medical officers of this service examined 260,217 children in 1961 and 276,385 in 1962. Notifiable defects in the children examined were found in 32.0 per cent. and 33.0 per cent. respectively.

Various surveys of school children are undertaken from time to time, e.g. hearing surveys, hookworm surveys, height-weight surveys, and nutrition surveys, and investigations to determine the incidence of enlargement of the thyroid gland, defective vision, and postural defects.

Six child guidance clinics in the metropolitan area and one at Newcastle operate under the administration of the School Medical Service. One clinic functions at the Yasmar Boys' Shelter and deals exclusively with cases which come before the Children's Courts. Each clinic is staffed by a psychiatrist, a psychologist and social workers.

(ii) *School Dental Service.* There are 33 dental officers and 28 dental assistants on the staff of the Division of Dental Services, Department of Public Health, providing a School Dental Service for New South Wales school children. At the beginning of the 1962 school year, twelve fully-equipped mobile dental clinics were in service in country areas. The clinics are staffed by a dentist and assistant. They visit country schools and provide treatment free of charge.

There are five fixed clinics, each of two surgeries, a waiting room, office and separate washrooms for patients and staff. These are located at Newcastle and Wollongong, and at Hurstville, Parramatta and Naremburn in the Sydney metropolitan area. Free treatment may be obtained for those school children whose parents desire it. It is necessary to restrict the treatment to children of 6, 7 and 8 years of age, although children of any age may obtain free treatment of an emergency nature. A system involving examination only was commenced in September, 1960, whereby as many primary school children as possible are encouraged to seek private treatment.

A well-equipped dental surgery is in continuous operation at the Stewart House Preventorium, staffed by officers of the Division. A free dental service is provided, in co-operation with the Royal Flying Doctor Service, for children living in far western areas. In country areas where no adequate dental facilities exist, school children of all ages are eligible for treatment in the mobile clinics.

In 1962, 71,690 school children were examined and 16,601 were treated in 59,080 visits; 26,718 extractions, 66,668 fillings and 60,378 other treatments were completed. The parents of a further 36,993 children were notified of dental defects requiring treatment.

3. *Victoria.*—School Medical Services are conducted in close association with the Education Department. All children between the ages of 5 and 14 years attending State and registered primary schools are examined regularly, and any disabilities found in the children are brought to the notice of their parents. School nurses, under medical direction, visit the homes and schools. Children suffering from physical and mental disabilities are recommended to attend appropriate schools or classes by the medical officers. Some special training for the handicapped is given.

The School Dental Service has a staff of 40 dental officers and provides dental attention for children in parts of the metropolitan area at one of three dental centres and for a number of country districts, by means of 15 mobile units. It also provides dental services for children's institutions in and around Melbourne and certain provincial centres. The service is now providing dental attention for some 80,000 primary school children.

4. *Queensland.*—During 1961–62, medical officers and nurses examined 98,952 school children, referring children with defects to their own doctors. In western Queensland, local doctors act as part-time ophthalmic surgeons. Advice is given on school sanitation, infectious diseases in schools, and health education.

During 1961, school dentists gave treatment to 12,878 school children whose parents could not afford private treatment. The treatment was carried out at four rail dental clinics and with portable equipment at schools. In addition, school children are treated at hospital dental clinics in the larger towns.

5. *South Australia.*—The Metropolitan State schools are visited annually and the children are examined while in Grades 1, 4 and 7 in the primary schools and in their second and fourth years in secondary schools. Efforts are made to visit country schools every three years, when all the children are examined. Students who wish to become teachers are examined on appointment as Leaving Teaching Scholars while still attending secondary schools, again immediately prior to entering the Teachers' College and finally when they leave the College to take up teaching. Courses of lectures in health education are given to all College students and, in addition, domestic art students are lectured on home nursing.

During 1961, 68,615 children were examined by medical officers in 143 country and 109 metropolitan schools. Of these, 3,884 required treatment for defective vision, 1,916 for defective hearing, and 13,004 for dental disorders.

There were 1,691 children examined at the Deafness Guidance Clinic during 1961. Of the 1,118 new patients, 626 were referred to doctors or hospitals for treatment.

Educational work was assisted by talks to mothers' clubs and interviews with parents by doctors and dentists, and by home visits and interviews by nurses.

**6. Western Australia.**—The School Medical Service of the State Health Department employs seven full-time medical officers for schools. During 1961, these officers examined 58,012 children (metropolitan 36,405, country 21,607). The 410 schools visited comprised metropolitan, 257 (state schools 183, private schools 74), and country, 153 (state schools 124, private schools 29). The aim is to examine each school child three times in his school career.

During 1961, the twelve full-time dentists employed by the School Dental Service visited 13 metropolitan schools, 110 country schools, 6 orphanages and 8 native missions. The number of children examined was 9,732. With the consent of their parents, 5,902 of these were treated. The number of dental vans operating was 12. The cost of the School Medical Service and the School Dental Service for 1960–61 was £94,215.

**7. Tasmania.**—During 1962, three full-time and five part-time medical officers examined school children in State and private schools. In addition, three specialist medical officers also examined school children. Eighteen full-time and six part-time sisters visited homes and schools. Of the 28,216 children examined by medical officers, 8,442 were found to have defects.

Eleven school dental officers were employed during 1962, operating from surgeries at Hobart, Launceston, Burnie, Devonport, Ulverstone, Currie and Flinders Island, and from mobile clinics in other districts. A full-time dental surgeon is in charge of each surgery or clinic. During the year, there were 18,844 new visits to the school dentists and 25,997 repeat visits.

The cost of school medical and school dental services for the year ended 30th June, 1962, was £92,954.

**8. Northern Territory.**—The Schools Medical Officer makes routine physical examinations of all children attending both pre-school centres and the schools which come under the supervision of the Assistant Supervisor of Education in the Northern Territory. The only children not so examined by him are those at the Native Welfare Settlement School, i.e. full-blood aborigines, who are examined during native health surveys.

An immunization clinic and a paediatric clinic are held each week at the Darwin Hospital.

A special dental service for school and pre-school children is available in Darwin and Alice Springs.

**9. Australian Capital Territory.**—The Commonwealth Department of Health is responsible for health aspects of child welfare in the Australian Capital Territory. These include a school medical service carried out by two medical officers and two trained nurses who are full-time officers of the Health Department.

Routine examinations are carried out at all schools, public and private, within the Territory. The programme is planned to provide for examinations at the ages of six, eight and 12 years. During 1962, the total number of children examined in these age groups was 2,149.

Examinations of children attending Pre-school Centres are made according to the time available, an attempt being made to cover children aged 4½ to five years.

In addition, an immunization programme for the protection of children aged from six months to 12 years against diphtheria, whooping cough and tetanus is carried out by the school doctor. Injections given during 1962 numbered 8,774.

Anti-poliomyelitis injections are also given to children attending both primary and secondary schools, and nearly 14,000 injections were given during 1962. These included fourth injections to those previously immunized. Anti-poliomyelitis injections numbering 20,707 were given also to infants, pre-school children and adults.

The officer-in-charge of the school service also acts as medical adviser to the Mothercraft Council and at the Baby Health Centres.

The school dental service is staffed by ten dentists and eleven dental nurses, and has operated since 1950. Free dental treatment is available to children at infants' and primary schools. During 1962, 8,015 children were examined and treated.

### § 4. Inspection of Food and Drugs for Sale

Public health legislation in force in all States provides for the inspection of food and drugs, with the object of ensuring that all goods sold shall be wholesome, clean, and free from contamination or adulteration, and that all receptacles, places and vehicles used for their manufacture, storage, or carriage shall be clean.

Earlier issues of the Official Year Book refer to the legislation in force in the various States to ensure the purity of dairy produce.

### § 5. Disposal of Dead by Cremation

The first crematorium in Australia was opened in South Australia in 1903. At 31st December, 1962, there were eighteen crematoria in Australia, situated as follows:—New South Wales, 7; Victoria, 4; Queensland, 2; South Australia, 1; Western Australia, 2; Tasmania, 2.

There is no crematorium in the Northern Territory or in the Australian Capital Territory.

The following table shows the number of cremations and total deaths in each State for each of the years 1958 to 1962.

CREMATIONS AND TOTAL DEATHS

State or Territory	1958		1959		1960		1961		1962	
	Crema-tions	Total deaths	Crema-tions	Total deaths	Crema-tions	Total deaths	Crema-tions	Total deaths	Crema-tions	Total deaths
New South Wales	12,190	32,350	13,352	35,249	13,809	35,030	13,991	35,048	15,198	36,861
Victoria ..	6,913	23,625	7,549	25,078	7,839	24,547	7,923	24,500	8,425	25,847
Queensland ..	3,308	11,455	3,678	12,349	3,709	12,370	3,998	12,756	4,220	13,182
South Australia ..	620	7,743	779	7,943	915	7,804	908	7,815	1,122	8,232
Western Australia	1,363	5,554	1,433	5,497	1,526	5,697	1,576	5,729	1,640	5,810
Tasmania ..	622	2,708	666	2,780	692	2,670	731	2,789	792	2,870
Northern Territory	..	106	..	124	..	134	..	128	..	144
Australian Capital Territory	..	182	..	192	..	212	..	196	..	217
<b>Australia ..</b>	<b>25,016</b>	<b>83,723</b>	<b>27,457</b>	<b>89,212</b>	<b>28,490</b>	<b>88,464</b>	<b>29,127</b>	<b>88,961</b>	<b>31,397</b>	<b>93,163</b>

## COMMONWEALTH GOVERNMENT ACTIVITIES

### § 1. General

At the time of Federation, the only health function given to the Commonwealth Government under the Constitution was the power to make laws with respect to quarantine. The *Commonwealth Quarantine Act* was passed in 1908, and a branch of the Department of Trade and Customs under the control of a Director of Quarantine was created on 1st July, 1909. The systems of quarantine originally established by the State Governments were transferred to the control of the Commonwealth. An amendment to the Constitution in 1946 gave the Commonwealth power to make laws with respect to pharmaceutical, hospital and sickness benefits, and medical and dental services. In addition, the Commonwealth Government has used its powers under Section 96 of the Constitution to make grants to the States for health purposes.

The Commonwealth Department of Health was formed in 1921 by the extension and development of the quarantine service, the Director of Quarantine becoming the Director-General of Health.

## § 2. National Health Benefits

**1. Pharmaceutical Benefits.**—A comprehensive range of drugs and medicines is made available to all persons receiving treatment from a medical practitioner registered in Australia. The benefits are supplied by an approved pharmacist upon presentation of a prescription, or by an approved hospital to patients receiving treatment at the hospital.

The patient pays the first 5s. of the cost of the prescription, but pensioners who are eligible for treatment under the Pensioner Medical Service (*see* para. 5, page 701) receive all benefits without any contribution being made.

Total Commonwealth expenditure on pharmaceutical benefits in the year 1961–62 was £35,189,883.

**2. Hospital Benefits.**—The payment of hospital benefits to the States is authorized under Part V of the *National Health Act* 1953–1962. The Act continued the agreements entered into with the various States under the *Hospital Benefits Act* 1951. Prior to the amendment of Part V of the *National Health Act* 1953–1961 by Act No. 82 of 1962, Commonwealth hospital benefits were of two types, “ordinary” hospital benefit and “additional” hospital benefit.

Commonwealth ordinary hospital benefit was provided for patients in public and approved private hospitals in Australia by way of deduction from the patients’ hospital account at the rate of 8s. a day. For pensioners enrolled in the Pensioner Medical Service and their dependants while they were patients in public hospitals, and for patients in certain South Australian hospitals, 12s. a day was provided. The daily rate of payments of these benefits in respect of patients in public hospitals was governed by agreements between the Commonwealth and each of the State Governments. These agreements expired on 20th August, 1962.

Commonwealth additional hospital benefits were paid through registered organizations to their financial members at the rate of 4s. a day to contributors who were insured for a fund benefit of at least 6s. a day but less than 16s. a day, and at the rate of 12s. a day to contributors who were insured for a fund benefit of at least 16s. a day. The patient normally received the additional benefit with the fund benefit payable by the organization. Reimbursement of the Commonwealth additional benefit was subsequently made to the organization by the Commonwealth.

The special account system was introduced on 1st January, 1959, to provide an assured rate of hospital fund benefits to contributors who would otherwise have been excluded from fund benefits on account of organizations’ rules covering pre-existing ailments, chronic illnesses and maximum fund benefit. The hospital fund benefit generally payable in such cases is 16s. a day and is paid either from special accounts guaranteed by the Commonwealth or from the ordinary accounts of the organizations. One condition of payment is that the treatment was given in a hospital recognized for the purpose of paying this benefit, although fund benefit is paid in certain circumstances in respect of treatment in hospitals which are not recognized. If the payments from special accounts exceed the contributions credited to the account, the amount of the deficit is reimbursed by the Commonwealth.

As from 1st January, 1963, the system of dual payment of Commonwealth ordinary and additional hospital benefits was discontinued. Qualified patients in approved hospitals and nursing homes are now eligible for only one Commonwealth benefit on any one day.

Insured qualified patients in approved hospitals (which generally are those hospitals recognized for special account purposes) receive Commonwealth hospital benefit of 20s. a day, which is paid through the contributors’ registered benefit organizations. A condition of eligibility for receipt of the hospital benefit of 20s. a day is that a person who joins a registered organization subsequent to 31st December, 1962, must contribute for a fund benefit of at least 16s. a day. Persons who at 31st December, 1962, were contributing for a fund benefit of at least 6s. a day but less than 16s. a day may continue to contribute for the same fund benefit and still be eligible to receive the Commonwealth hospital benefit of 20s. a day.

If the patient is not insured, a Commonwealth benefit of 8s. a day is deducted from his account and paid direct to the approved hospital.

A Commonwealth benefit at the rate of 36s. a day is paid in respect of pensioners enrolled in the Pensioner Medical Service and their dependants in public wards of public hospitals, provided that no charge is made to the pensioner in respect of the treatment.

A Commonwealth Nursing Home benefit of 20s. a day is paid for all qualified patients in approved nursing homes, whether the patient is insured or not. This benefit is deducted from the patient’s account and paid by the Commonwealth to the nursing home. Generally,

approved nursing homes are institutions which are not recognized for special account purposes and consist in the main of convalescent and rest homes, infirmary sections of State benevolent homes and State and private homes for the aged.

Australian residents and their dependants who receive hospital treatment while temporarily living overseas are eligible to receive the Commonwealth hospital benefit to which they are entitled.

Expenditure on hospital benefits in 1961-62 was £19,536,587. In addition, Commonwealth payments towards special account deficits totalled £2,665,566. This does not include expenditure on mental hospitals (see para. 3, below).

The following tables show the amount of ordinary benefit paid for each of the years 1957-58 to 1961-62, together with the number of registered organizations, the membership thereof, and payments of Commonwealth additional benefit and hospital fund benefit on account of occupied beds in public and approved private hospitals, for the year 1961-62. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by hospital benefit schemes is considerably higher than the number of members.

The figures for Commonwealth Benefits in the table below, and for Medical Benefits shown on page 701, exclude payments towards special account deficits.

#### HOSPITAL BENEFITS: ORDINARY BENEFITS(a) PAID (£)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Territories and Abroad	Australia
1957-58 ..	2,832,282	2,024,597	1,415,169	735,079	644,149	276,378	63,498	7,991,152
1958-59 ..	3,260,416	2,077,329	1,493,257	746,282	720,164	284,522	65,313	8,647,283
1959-60 ..	3,788,086	2,144,317	1,577,241	820,126	740,266	305,693	71,176	9,446,905
1960-61 ..	3,760,701	2,269,308	1,599,194	824,749	757,225	307,561	74,246	9,592,984
1961-62 ..	3,661,358	2,446,685	1,703,094	807,291	780,274	384,253	62,244	9,845,199

(a) Ordinary benefits were payable in respect of:—(i) beds occupied by pensioners in public hospitals (12s. a day); (ii) beds occupied in certain South Australian hospitals (12s. a day); and (iii) other occupied beds in public hospitals and approved private hospitals (8s. a day).

#### HOSPITAL BENEFITS: ADDITIONAL BENEFITS(a), SUMMARY, 1961-62

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Australia(b)
Registered organizations No.	30	(c)46	3	13	11	10	113
Members .. No.	1,225,338	901,596	292,579	336,445	269,123	104,645	3,129,726
Commonwealth benefit £	3,982,458	2,430,090	1,147,296	901,243	976,631	253,670	9,691,388
Fund benefit .. £	7,407,994	3,654,739	1,612,492	1,909,776	1,533,353	587,384	16,705,738

(a) An additional benefit of 4s. a day was payable to registered hospital benefit organizations for persons who contributed for a fund benefit of at least 6s. a day but less than 16s. a day, or 12s. a day for those who contributed for a fund benefit of at least 16s. a day.

(b) No hospital benefit organization is registered in the Northern Territory or the Australian Capital Territory. Members who live in one of these territories, or who are abroad, received their Commonwealth additional benefit and fund benefit through membership of an organization registered in one of the States.

(c) Includes 17 Bush Nursing Hospitals.

3. Mental Hospitals.—In 1946, when Commonwealth hospital benefits were introduced for patients in public hospitals, no provision was made for patients in mental hospitals. To help meet the cost of maintaining patients in mental hospitals, the Commonwealth Parliament passed the *Mental Institutions Benefits Act* 1948. This Act ratified agreements with the States, whereunder it was provided that the States would cease making charges for the maintenance of mental patients and that the Commonwealth would pay the States a benefit based upon the amount which had been collected by the States from the relatives of patients in mental hospitals by way of charges for maintenance.

These agreements operated for five years, and terminated in the latter half of 1954. The amount contributed by the Commonwealth during the operation of the agreements was approximately one shilling a day for each patient. When the agreements terminated, Dr. Alan Stoller, of the Victorian Mental Hygiene Authority, was commissioned to undertake a survey of mental health facilities and needs in Australia. His report, released in May,

1955, stated that serious overcrowding existed in the majority of mental hospitals in Australia. The provision of more beds was the most urgent need, but other accommodation and rehabilitation facilities were also required.

Following the report, the Commonwealth made an offer of £10 million to the States, as part of a capital expenditure programme of £30 million on increasing and improving patient accommodation. All States accepted the Commonwealth offer.

The following table sets out the amounts which have been paid to the State Governments by the Commonwealth Government each year from 1955–56 to 1961–62.

**EXPENDITURE ON MENTAL HOSPITALS BY THE COMMONWEALTH  
GOVERNMENT**  
(£)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Australia
1955–56 ..	208,763	445,747	66,588	12,245	9,984	29,822	773,149
1956–57 ..	383,555	527,213	88,068	128,467	51,855	68,974	1,248,132
1957–58 ..	324,151	545,365	114,104	152,159	29,236	91,384	1,256,399
1958–59 ..	196,831	619,585	118,512	122,328	17,210	45,892	1,120,358
1959–60 ..	359,060	518,271	74,613	91,770	36,799	66,995	1,147,508
1960–61 ..	432,881	83,819	97,642	45,691	15,276	51,933	727,242
1961–62 ..	648,637	..	70,717	27,839	77,023	..	824,216
<b>Total ..</b>	<b>2,553,878</b>	<b>2,740,000</b>	<b>630,244</b>	<b>580,499</b>	<b>237,383</b>	<b>355,000</b>	<b>7,097,004</b>

Amounts shown in the foregoing table represent payments made during the years shown under the *States Grants (Mental Institutions) Act* 1955. The total amounts payable to each State under this Act are in aggregate £10,000,000, to be distributed as follows:—New South Wales, £3,830,000; Victoria, £2,740,000; Queensland, £1,460,000; South Australia, £895,000; Western Australia, £720,000; and Tasmania, £355,000; Victoria and Tasmania have received their full entitlement under the Act.

There are no mental hospitals in the Northern Territory or the Australian Capital Territory.

**4. Medical Benefits.**—A medical benefits scheme has operated since July, 1953, being authorized firstly by the National Health (Medical Benefits) Regulations and then by the *National Health Act* 1953.

The basic principle of the scheme is Commonwealth support of voluntary insurance towards meeting the costs of medical attention. The benefits payable by the Commonwealth are paid either on a fee-for-service basis in respect of the items set out in the first and second schedules to the *National Health Act*, or in the form of a subsidy not exceeding half of the payments made to doctors by registered organizations under contract arrangements.

In order to qualify for the Commonwealth benefit, a person is required to be insured with a registered medical benefits organization. The organization pays the Commonwealth benefit to the contributor, usually at the time it pays its own benefit. Reimbursement of the Commonwealth benefit is subsequently made to the organization by the Commonwealth.

Provision was made from 1st January, 1959, for payments of fund benefit in cases of pre-existing ailments and long-term illnesses. These payments are made from the special accounts referred to on page 698.

Substantially increased Commonwealth and fund benefits were introduced for a number of medical services from 1st January, 1960. The largest increases were for major operations, where the combined benefits were doubled.

An organization wishing to be registered by the Commonwealth for the purposes of the medical benefits scheme is required to provide to its contributors, subject to its rules, all benefits specified in the first schedule to the *National Health Act* 1953–1962 at rates not less than those provided by the Commonwealth. The organization must be non-profit-making.

In 1961–62, Commonwealth expenditure on medical benefits was £10,645,642. In addition, Commonwealth payments towards special account deficits totalled £265,841.

The following table shows the number of registered medical benefit organizations, their membership, the number of medical services rendered to members and their dependants, and payments of Commonwealth benefits and medical fund benefits to members of registered organizations. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by medical benefit schemes is considerable higher than the number of contributors.

**MEDICAL BENEFITS: SUMMARY, 1961-62.**

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Australia (a)
Registered organizations	No. 26	23	6 <sup>1</sup>	8 <sup>2</sup>	9	10	82
Members	No. 1,157,535	797,068	280,001	291,489	225,328	94,836	2,846,257
Medical services ..	No. 8,821,000	5,644,558	2,493,878	2,268,490	1,825,965	615,241	21,669,132
Commonwealth benefit	£ 4,360,087	2,747,044	1,157,500	1,172,857	921,371	286,783	10,645,642
Fund benefit ..	£ 6,928,519	3,334,108	1,846,692	1,563,577	1,242,799	487,155	15,402,850

(a) No medical benefit organization is registered in the Northern Territory or the Australian Capital Territory. Members who live in one of those territories, or who are abroad, receive their Commonwealth Benefit and fund benefit through membership of an organization registered in one of the States.

**5. Pensioner Medical Service.**—The Pensioner Medical Service, which commenced on 21st February, 1951, was introduced under the authority of the National Health (Medical Services to Pensioners) Regulations made under the provisions of the *National Health Services Act 1948-1949*. The service has been continued under the provisions of the *National Health Act 1953-1962*.

The service provided to eligible pensioners consists of medicine provided free of cost and a medical service of a general practitioner nature such as that ordinarily rendered by a general medical practitioner in his surgery or at the patient's home. Specialist services are not provided. Patients may be charged a small fee by doctors for travelling and attendance outside normal surgery or visiting hours. Doctors participating in the scheme are paid on a fee-for-service basis by the Commonwealth Government.

Persons eligible to receive the benefits of the service are those who satisfy a means test and are receiving an age, invalid or widow's pension under the *Social Services Act* or a service pension under the *Repatriation Act*, persons receiving a tuberculosis allowance under the *Tuberculosis Act*, and dependants of persons eligible for the service.

Since 1st November, 1955, the means test which has applied to new enrolments in the service is the income test that had to be satisfied in order to qualify for a full rate pension as at 31st December, 1953.

The means test does not apply to persons who had applied for and were eligible to receive a pension prior to 1st November, 1955, or to persons receiving a tuberculosis allowance.

At 30th June, 1962, the total number of pensioners and dependants enrolled in the Pensioner Medical Service was 810,317, while the number of doctors participating in the scheme at that date was 6,012.

During the year ended 30th June, 1962, doctors in the scheme performed 7,362,563 services—visits and surgery consultations—for persons enrolled in the scheme. For these services, they were paid £4,397,938. The average number of services rendered by doctors to each person was 9.3.

**6. Anti-Tuberculosis Campaign.**—The main provisions of the *Tuberculosis Act 1948* are as follows:—(a) Section 5 authorizes the Commonwealth to enter into an arrangement with the States for a national campaign against tuberculosis; (b) Section 6 empowers the Commonwealth to take over or provide specified facilities for the diagnosis, treatment and control of tuberculosis; (c) Section 8 provides for the setting up of an advisory council to advise the Commonwealth Minister for Health on matters relating to the national campaign; and (d) Section 9 authorizes the Commonwealth to pay allowances to sufferers from tuberculosis and to their dependants.

Under an arrangement with the Commonwealth Government, each State conducts a campaign against tuberculosis. The Commonwealth Government reimburses the State for all approved capital expenditure in relation to tuberculosis, and for net maintenance expenditure to the extent that it exceeds net maintenance expenditure for the year 1947-48.



Thus the States carry out the physical or field work of the national campaign and the Commonwealth acts in an advisory, co-ordinating and financial capacity. For this reason, the Commonwealth has not found it necessary to make much use of its powers under Section 6.

An advisory council, known as the National Tuberculosis Advisory Council, has been set up. There are twelve members, the chairman being the Commonwealth Director-General of Health. Other members are the Commonwealth Director of Tuberculosis, the six State Directors of Tuberculosis, the Consultant (Chest Diseases) of the Department of Repatriation, two specialist private practitioners, and an Administrative Officer of the Commonwealth Department of Health.

To help reduce the spread of infection, the Commonwealth Government pays living allowances to persons suffering from tuberculosis, so that they may give up work and undergo treatment. These allowances have been in operation since 13th July, 1950. Since 5th October, 1961, the rates payable have been:—married sufferer with a dependent wife, £12 2s. 6d a week; dependent child or children under sixteen years of age—first dependent child, 15s. a week; each dependent child in addition to the first, 10s. a week (both additional to child endowment); sufferer without dependants, £7 7s. 6d. a week (reducible to £5 5s. a week if a person is maintained free of charge in an institution).

There is a means test on income but not on property. The allowance is reduced by the amount by which a person's income from sources other than his allowance exceeds, in the case of a married person, £7 a week, and in the case of a person without a dependent wife, £3 10s. a week.

The following table gives particulars of the number of new cases of tuberculosis notified in Australia for the years 1961 and 1962.

#### TUBERCULOSIS: NEW CASES NOTIFIED(a)

State or Territory	Age group					Total
	0-14	15-34	35-54	55 and over	Not stated	
1961						
New South Wales .. ..	67	259	565	553	11	1,455
Victoria .. ..	89	186	266	186	..	727
Queensland .. ..	22	99	279	264	22	686
South Australia .. ..	18	64	74	73	1	230
Western Australia .. ..	7	65	98	123	..	293
Tasmania .. ..	11	37	56	25	..	129
Northern Territory .. ..	..	10	14	13	1	38
Australian Capital Territory .. ..	..	7	4	1	..	12
Australia .. ..	214	727	1,356	1,238	35	3,570
1962						
New South Wales .. ..	60	277	544	579	..	1,460
Victoria .. ..	97	165	310	237	..	809
Queensland .. ..	30	115	336	338	14	833
South Australia .. ..	12	63	94	73	1	243
Western Australia .. ..	12	44	85	112	..	253
Tasmania .. ..	12	38	38	44	..	132
Northern Territory .. ..	3	18	15	18	..	54
Australian Capital Territory .. ..	5	9	20	7	..	41
Australia .. ..	231	729	1,442	1,408	15	3,825

(a) Figures supplied by the Directors of Tuberculosis in each State.

Expenditure by the Commonwealth Government during 1961-62 on its anti-tuberculosis campaign is set out in the following table. The figures for maintenance differ from those in the table shown in Chapter XV. Welfare Services, because they include administrative costs which are not a charge on the National Welfare Fund.

**COMMONWEALTH EXPENDITURE ON ANTI-TUBERCULOSIS CAMPAIGN,  
1961-62  
(£)**

State or Territory	Allowances	Maintenance (a)	Capital	Total
New South Wales .. ..	312,883	1,520,000	47,492	1,880,375
Victoria .. ..	199,443	1,140,420	57,834	1,397,697
Queensland .. ..	190,974	784,396	200,335	1,175,705
South Australia .. ..	82,805	357,956	46,227	486,988
Western Australia .. ..	39,989	408,998	11,890	460,877
Tasmania .. ..	46,759	190,000	22,801	259,560
Northern Territory .. ..	..	..	..	..
Australian Capital Territory ..	..	(b) 18,863	..	(b) 18,863
<b>Australia .. ..</b>	<b>872,853</b>	<b>4,420,633</b>	<b>386,579</b>	<b>5,680,065</b>

(a) Includes £86,000 for administrative costs. (b) Consists of £13,000 for cost of manufacturing B.C.G. vaccine for distribution throughout Australia and £5,863 for cost of survey work in the A.C.T.

The following table sets out expenditure by the Commonwealth Government on its anti-tuberculosis campaign since the start of the campaign.

**COMMONWEALTH EXPENDITURE ON ANTI-TUBERCULOSIS CAMPAIGN  
(£)**

Year	Allowances	Maintenance (a)	Capital	Total
1957-58 .. ..	1,254,693	4,585,215	2,128,462	7,968,370
1958-59 .. ..	1,062,609	4,864,186	1,411,062	7,337,857
1959-60 .. ..	1,025,472	4,414,620	729,236	6,169,328
1960-61 .. ..	946,445	4,259,012	410,370	5,615,827
1961-62 .. ..	872,853	4,420,633	386,579	5,680,065
<b>Total, 1947-48 to 1961-62..</b>	<b>17,837,220</b>	<b>44,761,050</b>	<b>14,963,506</b>	<b>77,561,776</b>

(a) Includes administrative costs.

7. Anti-Poliomyelitis Campaign.—The success of the 1954 United States field trials of the poliomyelitis vaccine developed by Dr. Jonas Salk and his associates at the University of Pittsburgh was announced in April, 1955. The Commonwealth Government immediately decided to produce the anti-polio vaccine in Australia.

With the advantage of the experience of the campaigns in the United States and Canada, Australia has adopted a vaccine which has proved to be safe and effective in building up immunity against poliomyelitis.

The vaccine was being produced in Australia by the end of 1955 under the most rigid safety conditions. Plans were made for comprehensive testing procedures to be carried out at many stages both during the production process and of the finished product. These tests ensured the maintenance of safety standards no less rigid than those laid down in other countries where vaccination campaigns were in progress. The Research Laboratory at the Fairfield Hospital, Melbourne, agreed to act as an independent testing authority under an arrangement with the Commonwealth Government, and the pathology department of the University of Melbourne also agreed to conduct tests. No vaccine was released for use unless the searching requirements of the Commonwealth Serum Laboratories, the Fairfield Hospital, and the University of Melbourne were met.

The vaccine was supplied to the States free of charge, and the States accepted responsibility for the cost of their particular vaccination programmes. No child can be vaccinated without the consent of his parents or guardian.

Distribution of the Salk poliomyelitis vaccine to the States began in July, 1956. The States were responsible for the organization and running of their own campaigns and for the distribution of the vaccine in accordance with priority groups established by the National Health and Medical Research Council. Up to 1958, priority was given to children in the 0-14 age group, expectant mothers, and persons subjected to special risk. During 1958, this priority was extended to persons in the 15-44 age group.

Vaccination against poliomyelitis takes the form of four injections of the vaccine. The second injection is given approximately four weeks after the first, the third injection is given not less than 32 weeks after the first and the fourth injection a minimum of one year after the third dose.

Where the incidence of the disease in certain areas approaches epidemic proportions, special efforts have been made to vaccinate as soon as possible all persons in the area who give their consent.

One million doses of each of the three types of monovalent Sabin vaccine were imported by the Commonwealth in October, 1962, for use in a possible emergency. The decision whether to use the Sabin vaccine rests with the individual State Health Authorities.

The following figures relating to immunization coverage are taken from reports presented by the States at the meeting of the Poliomyelitis Committee of the National Health and Medical Research Council held in July, 1961.

#### POLIOMYELITIS: PERCENTAGE OF POPULATION COMPLETED COURSE OF IMMUNIZATION(a)

Age Group (Years)	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust. (b)	Tas.
0-4 .. ..	67.5	72.0	75.0	78.0	64.0	(c) 91.7
5-9 .. ..	89.2				84.0	
10-14 .. ..	92.6				89.0	
15-19 .. ..	75.3	15.6	46.0	46.0	47.0	(d) 52.0
20-40 .. ..	42.6					
40-44 .. ..	..					
45 and over ..	..	..	..	..	..	..

(a) From reports presented by the States at the meeting of the Poliomyelitis Committee of the National Health and Medical Research Council held in July, 1961. (b) Total, under 15 years, 78.0 per cent.; total, 20 years and over, 41.0 per cent.; total, all ages, 57.0 per cent. (c) Under 17 years. (d) 17-45 years.

No further data are available on immunization coverage since July, 1961, but all States are vigorously pursuing the poliomyelitis immunization campaign.

The numbers of new cases of poliomyelitis notified in each State are shown for each year from 1956 to 1962 in the following table.

#### POLIOMYELITIS: NEW CASES NOTIFIED

Year	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1956 .. ..	240	251	112	122	401	55	..	13	1,194
1957 .. ..	58	13	24	16	8	6	..	..	125
1958 .. ..	23	60	5	10	2	..	..	..	100
1959 .. ..	16	30	4	1	3	..	..	..	54
1960 .. ..	9	23	6	10	4	36	17	..	105
1961(a) ..	201	50	141	44	2	11	1	..	450
1962p ..	177	20	38	17	4	..	1	2	259

(a) Cases confirmed by the Poliomyelitis Surveillance Committee.

8. **Free Milk for School Children Scheme.**—In 1950, the *States Grants (Milk for School Children) Act* was passed. The object of this Act was to improve the diet of school children by the addition of a small quantity of milk each day. All children under the age of thirteen years attending public or private primary schools, including nursery schools,

kindergartens, crèches and aboriginal missions, are eligible to receive free milk. The cost of the milk plus half the capital or incidental costs, including administrative expenses of the scheme, is reimbursed by the Commonwealth to the States. All States now participate in the scheme. At 30th June, 1962, approximately 1,618,000 children were entitled to receive free milk under this scheme.

Expenditure by the Commonwealth Government under the scheme since its inception has been as follows.

#### COMMONWEALTH EXPENDITURE ON MILK FOR SCHOOL CHILDREN SCHEME

(£)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia
1957-58 ..	1,139,512	677,000	401,000	212,000	153,600	160,433	860	18,186	2,762,591
1958-59 ..	1,190,048	782,623	474,909	235,879	182,249	181,025	2,799	19,104	3,068,636
1959-60 ..	1,286,672	910,000	480,246	275,000	229,872	156,358	10,493	22,874	3,371,515
1960-61 ..	1,279,460	1,020,000	518,244	282,000	225,377	200,075	21,994	24,064	3,571,214
1961-62 ..	1,329,363	1,036,165	565,000	332,258	264,392	175,256	23,271	27,734	3,753,439
Total, 1950-51 to 1961-62..	11,401,333	7,067,455	3,717,338	2,283,179	1,745,989	1,730,087	63,620	169,149	28,178,150

The figures in the foregoing table differ slightly from those in the table shown in Chapter XV. Welfare Services, as they include capital and administrative costs. Figures in the latter table represent only expenditure which is a charge on the National Welfare Fund (i.e., the cost of the milk).

### § 3. Commonwealth Organizations concerned with Health

1. **National Health and Medical Research Council.**—In 1926, the Commonwealth Government established a Federal Health Council, in accordance with a recommendation of the Royal Commission on Health (1925). "for the purpose of securing closer co-operation between the Commonwealth and State Health Authorities". In 1936, the Commonwealth Government decided to create a body with wider functions and representation, and the National Health and Medical Research Council was established with the following functions:—to advise Commonwealth and State Government on all matters of public health legislation and administration, on matters concerning the health of the public and on medical research; to advise the Commonwealth Government on the expenditure of money specifically appropriated to be spent on the advice of this Council; to advise the Commonwealth Government on the expenditure of money on medical research and on projects of medical research generally; to advise Commonwealth and State Governments on the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition.

The council consists of the Commonwealth Director-General of Health (as chairman), two other officers of the Commonwealth Department of Health, the official head of each State Health Department, the Director of Public Health for Papua and New Guinea, a representative of the Commonwealth Serum Laboratories Commission, and ten other members, one each being nominated by the Australian Medical Association, the Australian Dental Association, the Australian Paediatric Association, the Australian College of General Practitioners, the Royal Australasian College of Physicians, the Royal Australasian College of Surgeons, the Australian Regional Council of the Royal College of Obstetricians and Gynaecologists, the College of Pathologists of Australia, the College of Radiologists of Australasia, and the Australian universities having medical schools. An eminent layman and laywoman, appointed by the Commonwealth Minister for Health, also serve on the council.

The first session of the National Health and Medical Research Council was held at Hobart in February, 1937. The fifty-fourth session was held at Sydney in November, 1962.

Under the *Medical Research Endowment Act* 1937, the Commonwealth Government has made an annual appropriation of funds to assist:—(a) departments of the Commonwealth or of a State engaged in medical research; (b) universities for the purpose of medical research; (c) institutions and persons engaged in medical research; and (d) in the training of persons in medical research. In 1961–62, this appropriation was £298,500.

Most of the detailed work of the Council is delegated to a number of specialized Standing Committees, on such subjects as medical research, public health, veterinary public health, occupational health, tropical health, dental health, epidemiology, maternal and child welfare, nutrition, nursing, ultrasonics, food standards, food additives, radio-therapy and radio-isotopes. Applications for research grants are considered by the Medical Research Advisory Committee before being submitted to the Council, which then advises the Minister for Health.

**2. The National Biological Standards Laboratory.**—The *Therapeutic Substances Act* 1953–1959 provides the Commonwealth with powers to ensure that therapeutic substances used for the prevention, diagnosis and treatment of disease in man and animals are safe, pure and potent.

The Director-General of Health is authorized under this Act to set up laboratories to test such substances. In 1958, the first steps were taken to establish an Australian National Biological Standards Laboratory in Canberra.

The laboratory is divided into two main divisions, a Biological Division and a Pharmaceutical Division. The Biological Division consists of the Bacterial Products Laboratory, the Viral Products Laboratory, an Endocrine Products Laboratory and an Antibiotic Products Laboratory. The Pharmaceutical Division consists of an Analytical Chemistry Laboratory, and a Pharmacology Laboratory.

All these laboratories, with the exception of the Bacterial Products Laboratory, have now been established and have commenced work.

Samples of therapeutic agents available in Australia are taken and tested for compliance with legal standards. A major function of the laboratories is the establishment of such standards where none at present exist or present standards are unsatisfactory.

The laboratories receive international reference standards of biological substances from stocks maintained by the World Health Organization, and will on request issue Australian reference standards which have been assayed against international standards.

**3. Commonwealth Serum Laboratories.**—The laboratories were established in 1916 under the administration of the Department of Trade and Customs and from 1921 to 1961 were operated under the Department of Health. By Act No. 38 of 1961, control of the laboratories passed to the Commonwealth Serum Laboratories Commission on 2nd November, 1961.

The laboratories' basic function is to ensure the supply of essential biological products in accordance with national health needs. This includes:—production and supply of essential biological products; research and development relating to biological products and allied fields; and the maintenance of potential production capacity for use in emergencies.

Since their foundation, the laboratories have greatly extended in size and scope. They now produce some 450 regular products and many special products for use in the diagnosis, prevention and treatment of human and animal diseases. Professional, technical and other staff total over 900.

Products comprise a full range of human bacterial and virus vaccines, veterinary bacterial and virus vaccines, serum products such as blood fractions, a wide variety of antibacterial and antitoxic sera, antivenenes, penicillin, endocrines, including insulin, A.C.T.H., pituitary and thyroid extracts, allergy testing materials and desensitizing preparations, culture media and diagnostic agents for clinical and laboratory work. More recently, tissue culture materials have been prepared and supplied to virus research workers throughout Australia.

Continuous research is conducted into the relevant aspects of microbiology and immunology, and related fields. As the growth of medical and scientific knowledge in Australia and overseas reveals new methods of diagnosis, prevention and treatment of diseases, this information is applied to the preparation of new biological products at the laboratories.

Facilities are maintained for investigations into public health matters which are inconvenient or impracticable to handle at the Commonwealth Health Laboratories or the School of Public Health and Tropical Medicine.

The laboratories serve as a national centre for the maintenance in Australia of the international standards of the Permanent Commission on Biological Standards (World Health Organization). They act as a regional reference centre for W.H.O. in collating reports of the prevalence of certain infectious diseases, and provide facilities for the identification of these diseases.

Veterinary biological products produced at the laboratories have given the lead to other producers in Australia, resulting in the diminution of incidence of a number of serious infectious stock diseases.

4. **The Commonwealth Health Laboratories.**—Health laboratories, of which there are fifteen, are situated in the following towns: Albury, Alice Springs, Bendigo, Cairns, Canberra, Darwin, Hobart, Kalgoorlie, Launceston, Lismore, Port Pirie, Rockhampton, Tamworth, Toowoomba and Townsville. They were established as an essential part of the quarantine system but were also to undertake research into local health problems and to provide doctors of each district with up-to-date facilities for laboratory investigation and diagnosis. It was realized that co-operation between the general practitioner, with his clinical observations and knowledge of the environment of disease on the one hand, and the staff of a well-equipped laboratory on the other, is essential to the investigation and control of disease.

From this standpoint, the laboratories have proved their value in the determination of leptospirosis and endemic typhus in North Queensland, in the investigation of special local problems in Darwin, of undulant fever throughout Australia, of silicosis and tuberculosis at Kalgoorlie and of plumbism at Port Pirie. In these investigations, close co-operation exists with State and local health and hospital services, especially in Queensland, where collaboration has yielded exceptionally valuable results in differentiating the groups of fevers previously unclassified in that State. In this investigational work, as well as in more routine activities, the laboratories have at their disposal the full resources and technical and specialist facilities available at the Commonwealth Serum Laboratories and the School of Public Health and Tropical Medicine, Sydney.

The laboratories are unique in that, with the exception of the use of X-rays, they cover all the fields of diagnostic requirements, namely, pathology, public health, haematology, parasitology, mycology, bacteriology and biochemistry.

5. **Commonwealth Acoustic Laboratories.**—Sponsored by the National Health and Medical Research Council, the Acoustic Research Laboratory, Sydney, investigated inter-communication difficulties and noise problems in aircraft and tanks (1942-46). It then investigated the problem of congenital deafness in children resulting from maternal rubella. The Department of Health took over the laboratory in January, 1947, and subsequently established branch laboratories in all other State capitals.

The *Acoustic Laboratories Act* 1948 gave the Minister for Health the right to establish, maintain and operate, within the Commonwealth, acoustic laboratories for scientific investigations, including tests in respect of hearing aids and their application to the needs of individuals, and in respect of problems associated with noise as it affects individuals. In 1949, the Government approved the provision and maintenance of hearing aids, without charge, to deaf school and pre-school children. This service has since been extended to those whose hearing loss is discovered after leaving school, but who are still under 21 years of age. The laboratories' functions also include:—provision and maintenance of hearing aids on behalf of Repatriation and other Commonwealth Departments; assistance to the State Education Departments in measuring deafness by providing and maintaining portable audiometers; the making of hearing tests of Civil Aviation aircrew as required by international agreement; and the making of independent tests on behalf of State and other authorities.

The Sydney laboratory is responsible for staff training, production of equipment, calibration of hearing-aids and audiometers, and the technical administration of branch laboratories.

6. **Commonwealth X-ray and Radium Laboratory.**—In 1928, the Commonwealth Government purchased ten grammes of radium for use in medical treatment and research in

Australia. The use of this radium was to be co-ordinated by the Department of Health, and in 1929 the Department established the Commonwealth Radium Laboratory to act as custodian of the radium and to ensure its equitable distribution and efficient use.

The radium is distributed on loan to treatment centres throughout Australia. Under the terms of these loans, treatment at well-equipped clinics is available to all persons requiring it, irrespective of their ability to pay. Portions of the original stock of radium have been remounted from time to time, reflecting changes in techniques of treatment.

In 1935, the work of the laboratory was extended to include physical aspects of X-ray therapy, and the name of the laboratory was changed at this time to its present form.

Since 1939, the functions of the laboratory have included investigations of the physical aspects of the diagnostic use of X-rays with particular emphasis on miniature radiography and high-kilovoltage techniques.

In 1946, the laboratory imported the first artificially-produced radioactive isotopes used in Australia and established a system for the procurement and distribution of these substances.

A radiochemical laboratory and associated facilities were set up in the laboratory to permit the assay of radioactive materials present in minute amounts in the environment—in air, water, soil, and foods such as milk, grain and vegetables. A programme of monitoring the fall-out in Australia arising from the testing of nuclear weapons is continuing.

The laboratory co-operates with the physical services which have been developed in the other capital cities of Australia to provide local facilities for the production of radon, for the calibration of X-ray therapy equipment, and for the measurement of the exposure to radiation of those who work with X-rays and radioactive materials. The services of the laboratory are available to all who work with ionizing radiations.

A radon service has been operated by the laboratory since its inception. During the year ended 30th June, 1962, 32,724 millicuries of radon were issued by the laboratory in the form of implants, needles and tubes for use in Victoria, Tasmania, South Australia and Western Australia. A further 24,825 millicuries were issued by the associated centres in Sydney and Brisbane. The corresponding figures for 1960–61 were 39,360 millicuries and 27,872 millicuries, respectively. The issue of radon from a few centres to serve hospitals all over the continent is an Australian development which enables very efficient use to be made of the radium available.

Since 1935, the laboratory has maintained the Australian (free-air) standard for the precise measurement of X-ray dose. Sub-standard clinical dosimeters used by the laboratory and by centres in other States are calibrated in terms of this standard.

Through the development of atomic energy programmes overseas, supplies of radio-isotopes have been available for use in Australia since 1946. Some of the radio-isotopes required in Australia are prepared by the Australian Atomic Energy Commission in its reactor at Lucas Heights. At the present time, the procurement and distribution of radio-isotopes to be used in medicine and medical research is the responsibility of the Department of Health, and these isotopes are procured by the laboratory, as a central procurement agency, principally from Great Britain, Canada and the United States of America. The procurement and distribution of radio-isotopes for industrial and non-medical uses is the responsibility of the Australian Atomic Energy Commission.

The importation of radio-isotopes is restricted under the Customs (Prohibited Imports) Regulations. Approval for importation is given either by the Director-General of Health or by the Australian Atomic Energy Commission, depending on the category of use, after it has been established that the isotope will be used safely and usefully.

During 1961–62, 37 different isotopes were procured for use in medicine and medical research. They represented 987 separate deliveries, of which 47 were from the Australian Atomic Energy Commission. Of the 37 isotopes, seven were stable isotopes. Of the remaining 30, which were radio-isotopes, five were obtained from the Australian Atomic Energy Commission. Additional supplies of one of these were imported. Of the 30 radio-isotopes procured, 14 were for use in medical diagnosis or treatment, as distinct from medical research. Bulk supplies of radio-isotopes used for diagnosis or treatment are obtained regularly, and these are distributed by the laboratory as individual doses for use on patients throughout Australia in accordance with a policy developed by the Committee on Radio-isotopes of the National Health and Medical Research Council. These radio-isotopes are issued free of charge. In the year ended 30th June, 1962, 11,227 individual doses of these materials were issued for use on patients.

Investigations of the degree of protection necessary in particular applications of X-rays and radioactive materials continue to be an important activity of the laboratory. It prepares specifications of the protection facilities necessary in departments and laboratories employing ionizing radiations in medicine, research, and industry, and carries out measurements of radiation levels in existing departments and laboratories. A film-badge service to measure the radiation dose received by those exposed to ionizing radiations is maintained. In 1961-62, 31,118 film-badges were processed, assessed and reported on; the corresponding figure for the previous year was 26,238.

The laboratory maintains a library of radiological literature and issues library bulletins at appropriate intervals. Technical communications on topics related to its functions are issued from time to time.

**7. The School of Public Health and Tropical Medicine.**—In March, 1930, the Commonwealth government, under an agreement with the University of Sydney, established a School of Public Health and Tropical Medicine at the University of Sydney, for the purpose of training medical graduates and students in the subjects of public health and tropical medicine. The organization of the Australian Institute of Tropical Medicine at Townsville was merged in the new school, and the staff, equipment and material were transferred to Sydney.

The School comprises sections of Preventive Medicine, Tropical Medicine, Occupational Health, Environmental Health, Biochemistry, Bacteriology and Pathology, Parasitology, Medical Entomology and Medical Statistics. The Child Welfare section of the Institute of Child Health is located at the School, with which it is closely associated. The Occupational Health Section undertakes surveillance of the health of persons employed at the Small Arms Factory, Lithgow, and at the Munitions Filling Factory, St. Mary's. The Library, which includes approximately 17,000 bound volumes and a large collection of official and institutional papers and reports, forms an important information centre in the subjects of public health and tropical medicine.

The work of the school comprises both teaching and investigation. Courses are held for the university post-graduate diploma in public health and the diploma in tropical medicine and hygiene. Lectures are given in public health and preventive medicine as prescribed for the fifth year of the medical curriculum. Courses are provided also in hygiene and social medicine for students of architecture and social studies; in tropical medicine for lay officers, nurses in tropical service, and missionaries; and in industrial health for engineering students. Training is also provided for certain personnel of the armed services, for laboratory workers from various services and institutions, and for post-graduate nursing diploma students.

Investigations cover a wide range of public health and medical subjects, both in the laboratory and in the field. Field work has been carried out in Australia and in Papua, New Guinea, Norfolk Island, and Nauru in co-operation with the local administrations and the South Pacific Commission. Limited accommodation and other facilities for investigation can be made available at the school for independent research workers.

**8. Institute of Child Health.**—Associated with the School of Public Health is the Institute of Child Health, part of which is located in the School of Public Health and Tropical Medicine in the grounds of the University of Sydney, and part at the Royal Alexandra Hospital for Children, Camperdown. The activities of the Institute are concerned with research into medical and social problems of childhood, undergraduate teaching of students of the Faculty of Medicine in the University of Sydney, post-graduate teaching of doctors and members of associated professions, and collaboration with other bodies concerned with the general field of child health.

The director of the Institute is the Professor of Child Health in the University of Sydney. He is also a senior honorary paediatrician on the staff of the Children's Hospital.

The director is required to co-ordinate and control undergraduate and post-graduate teaching in paediatrics and child health. Each group of medical students attends the Children's Hospital for 10 weeks tuition in paediatrics and child health.

The particular research activities of the Institute vary with the immediate and long-term problems which present themselves. Fields of study have included rheumatic fever, scurvy, accidents, prematurity, hypothyroidism and mental deficiency. Studies are undertaken into the problems of infants and children deprived of a normal home life.

Members of the Institute staff are available for consultation by Commonwealth and State authorities and voluntary agencies.



The establishment of the Institute at present consists of the director, two senior medical officers, one child psychiatrist, five other medical officers, a psychologist, a social worker and clerical staff.

**9. Commonwealth Bureau of Dental Standards.**—This Bureau is concerned with research, standards, and testing related to dental and allied materials and processes. It became part of the Department of Health in January, 1947, but for the preceding eight years it was sponsored by the National Health and Medical Research Council. During that time, the then Dental Materials Research Laboratory established itself as a recognized authority in its special field and proved to be of value to the defence services, government departments, the dental profession and manufacturers of dental products. By maintaining the quality of dental materials and improving techniques for their use, the Bureau continues to assist the dentist in his service to the community—a service that calls for restorations and appliances of a high degree of precision and permanence under very exacting conditions.

The functions of the Bureau are:—original research into dental equipment, materials, techniques and processes; regular reporting of the results of these investigations in recognized Australian scientific journals; the development of specifications for dental materials and equipment, through the Standards Association of Australia, in consultation with a committee representing the Commonwealth Department of Health, the Australian Dental Association, and manufacturers and distributors; and the provision of a consultative service and testing facilities for manufacturers and distributors of dental materials with a view to assisting them in the improvement of existing products and the development of new materials.

**10. The Australian Institute of Anatomy.**—The Australian Institute of Anatomy is situated in a building erected in Canberra by the Commonwealth Government under the *Zoological Museum Agreement Act 1924*. Prior to the passing of this Act, the Commonwealth Government had expressed regret that the Australian nation possessed neither a collection of specimens of the unique and fast disappearing fauna of Australia, nor a museum in which such specimens could be preserved for future generations. Sir Colin MacKenzie, the first Director of the Institute of Anatomy, presented his entire private collection of Australian fauna to the Commonwealth Government. This gift was housed in the Institute. The Institute became part of the Commonwealth Department of Health in 1931.

The original collection has been greatly augmented. In addition to donations of material, there have been several endowments for orations and lectures.

The Institute consists of a museum section and a laboratory section. In the museum section, which is open to the public, a portion of the original collection of anatomical specimens assembled by Sir Colin MacKenzie is displayed, together with ethnological collections which have been added since the foundation of the Institute. The material has been arranged to present simple lessons in human hygiene, to display the anatomical features and peculiarities of Australian fauna, and to display aspects of the character of Australian aboriginals and natives of Papua and New Guinea.

A number of Health Department sections are now situated in the Institute. These include the Museum and Medical Artistry Section, the Nutrition Section, the Commonwealth Health Laboratory for the Australian Capital Territory, and a Veterinary Laboratory.

The scientific research work of the Institute is now concentrated on problems of nutrition. It takes the form of field surveys of the dietary status of the Australian population and laboratory investigations into the biochemistry of nutrition and metabolism.

#### § 4. Control of Infectious and Contagious Diseases

**1. General.**—The provisions of the various Acts with regard to the compulsory notification of infectious diseases, and the precautions to be taken against the spread thereof, are dealt with under the headings of quarantine, and notifiable diseases including venereal diseases.

**2. Quarantine.**—The *Quarantine Act* is administered by the Commonwealth Department of Health, and has three sections of disease control, as follows:—(i) human quarantine, which controls the movements of persons arriving from overseas until it is apparent that they are free of quarantinable disease; (ii) animal quarantine, which controls the importation of animals and animal products from overseas and the security of other animals present on vessels in Australian ports; and (iii) plant quarantine, which regulates the conditions of importation of all plants and plant products with the object of excluding plant diseases, insect pests and weeds.

In respect of interstate movements of animals and plants, the Act becomes operative only if the Governor-General considers that Commonwealth action is necessary for the protection of any State or States, and in general the administration of interstate movements of animals and plants is left in the hands of the States.

(i) *Human Quarantine.* All passengers and crews arriving in Australia from overseas, whether by air or sea, are subject to a medical inspection for the purpose of preventing the introduction of disease into Australia. At the major ports, full-time quarantine officers carry out the work, but in the minor ports local doctors act as part-time quarantine officers. In each State, quarantine activities are controlled by the Commonwealth Director of Health, who is a medical officer of the Commonwealth Department of Health.

The main concern of the examining officers is to detect cases of the quarantinable diseases smallpox, cholera, yellow fever, plague and typhus fever. These diseases are not endemic to Australia, and it is of great importance to prevent their entry. Quarantine stations at the major ports and at Darwin and Townsville are kept ready for occupation at all times. In addition, persons arriving in Australia and suffering from infectious diseases such as chicken pox, mumps, scarlet fever and measles are directed to appropriate care and placed in isolation where necessary.

The increasing use of air travel has created particular quarantine problems. Before the use of air transport, persons suffering from an infectious disease would show symptoms on arrival and before disembarkation. Passengers travelling by air, however, can arrive well within the incubation period, and they are, therefore, required to be vaccinated against smallpox before departure. Those from an area infected with cholera or yellow fever are required to be inoculated, in addition, against the particular disease prevalent in that area. They are also required to report any sickness which they might suffer within fourteen days after arrival. Passengers arriving in Australia by sea are also required to be vaccinated against smallpox, but exemption is granted to infants under twelve months of age, and to those who hold religious convictions against vaccination or who are suffering from a medical condition which makes vaccination undesirable. All passengers, whether they arrive by sea or air, are required to give their intended place of residence, so that they may be traced if a case of disease occurs among the passengers on the aircraft or ship by which they travelled to Australia.

The number of cases of infectious (non-quarantinable) diseases which were discovered among the passengers and crew of overseas vessels and aircraft calling at Australian ports during the year ended 30th June, 1962, and during the preceding four years, are shown in the following tables.

**HUMAN QUARANTINE: CASES OF INFECTIOUS (NON-QUARANTINABLE) DISEASES ON OVERSEA VESSELS AND AIRCRAFT CALLING AT AUSTRALIAN PORTS, 1961-62**

Disease	Number of overseas vessels and aircraft on which cases were found	Number of cases of infectious disease	
		Passengers	Crew
Bacterial meningitis .. .. .	1	1	..
Chicken pox .. .. .	30	92	10
Diphtheria .. .. .	1	13	..
Gastro enteritis .. .. .	2	3	..
Infectious hepatitis .. .. .	3	3	3
Measles .. .. .	21	48	..
Mumps .. .. .	18	24	..
Rubella .. .. .	16	36	1
Typhoid .. .. .	1	..	1
Whooping cough .. .. .	1	1	..
<b>Total .. .. .</b>	<b>(a) 67</b>	<b>221</b>	<b>15</b>

(a) On some vessels there were cases of more than one disease.

**HUMAN QUARANTINE: OVERSEA VESSELS AND AIRCRAFT ARRIVING IN AUSTRALIA AND CASES OF INFECTIOUS (NON-QUARANTINABLE) DISEASE, FOUND THEREON**

Year	Number of oversea vessels and aircraft cleared		Number of oversea vessels and aircraft on which cases were found	Number of cases of infectious disease	
	Ships	Aircraft		Passengers	Crew
1957-58.. ..	2,658	1,881	61	202	20
1958-59.. ..	2,826	1,938	63	344	9
1959-60.. ..	3,046	2,063	61	234	12
1960-61.. ..	3,481	2,354	55	296	4
1961-62.. ..	3,761	2,417	67	221	15

(ii) *Animal Quarantine.* Animal quarantine, authorized by the provisions of the *Quarantine Act* 1908-1961, aims at preventing the introduction or spread of animal diseases. It covers the importation of all animals, raw animal products and biological cultures associated with animal diseases, and goods associated with animals.

Of the domesticated animals, only horses, dogs, cats and poultry are admitted from a limited number of countries depending on diseases present in the country of origin. All must be accompanied by health certificates which include prescribed tests. On arrival in Australia, they are subject to quarantine detention.

Zoological specimens are imported into registered zoos, where they remain in permanent quarantine. Circuses are also registered if exotic species of animals are kept. In a somewhat similar manner, animals for scientific purposes are imported to approved laboratories. All these premises are kept under constant surveillance. Raw animal products such as hair, types of wool, skins and hides, are specially treated under quarantine control. Such items as raw meat, sausage casings and eggs, which cannot be sterilized, are admitted from very few countries. Other items, such as harness fittings, fodder, and ship's refuse, are treated to destroy any possible infection.

The Animal Quarantine Service is also responsible for the health certification of animals for export to oversea countries in accordance with their various requirements.

The Division of Veterinary Hygiene was created in 1926 to deal with the administration of animal quarantine. Formerly, the full responsibility for this administration fell on the Director of Quarantine. The central administration is situated within the Health Department at Canberra, with a director, an assistant director, and veterinary officers. The Principal Veterinary Officer of the Department of Agriculture in each State is appointed Chief Quarantine Officer (Animals) of the State, and members of his staff Quarantine Officers (Animals). These State officers carry out the quarantine policy formulated by the central administration. Quarantine accommodation is provided in permanent animal quarantine stations at each capital city.

The Division participates in world-wide international notification of the more serious contagious diseases of animals and maintains a census of such diseases throughout the world. Information regarding animal diseases and parasites in Australia is also collected and disseminated by means of service publications. Consultation on technical matters is maintained with various scientific institutions, notably the Commonwealth Scientific and Industrial Research Organization. In matters of policy and the quarantine control of imports, there is a close liaison with the Department of Customs and Excise.

The Division collaborates with the "General" and "Plant" divisions of the quarantine service. Many diseases of animals are communicable to man, and for this reason "Animal" and "General" quarantine administration are in some respects inseparable. Similarly the interests of "Animal" and "Plant" divisions overlap, many items such as insects, fodder and straw being the subject of combined control.

Once every two years, the director of the Division convenes the Biennial Conference of Principal Commonwealth and State Veterinarians, which meets under the auspices of the Australian Agricultural Council to discuss problems of animal health and disease control and animal quarantine.

(iii) *Plant Quarantine.* Since 1st July, 1909, the importation into Australia of all plants or parts of plants, cuttings, seeds and fruits, whether living or dead, has been subject to an increasingly stringent quarantine with the object of preventing the introduction of insect pests, plant diseases and weeds not yet established in this country. Under the *Quarantine Act 1908-1961*, quarantine inspectors are required to examine all plant material at the first port of entry and to release only material free from diseases and pests. Everyone entering Australia is required to declare if he or she has any plant material in luggage or personal effects. Heavy penalties are laid down for those found evading the regulations. All plant material entering as cargo must also be declared.

When the Commonwealth became responsible for all plant quarantine, the State Governments agreed to co-operate by providing and maintaining inspection facilities and personnel, for which they are reimbursed by the Commonwealth. In 1921, the administration of the regulations came under the newly-formed Department of Health, and in 1927 the Division of Plant Quarantine was created, under a director who is responsible for policy and legislation and for co-ordinating the work of the State officers, who carry out the detailed administration in their capacity as Commonwealth officers.

Any plant material found carrying diseases or pests, or suspected of doing so, may be ordered into quarantine for remedial treatment, or, if the treatment is impracticable, may be destroyed. The cost of treatment is met by the importer. Regulations governing the different types of plants are based on the following broad principles. (a) The importation of plants likely to be infected with plant diseases, noxious fungi or poison plants is prohibited. (b) Agricultural seed must conform to standards of purity, insect pest and disease freedom. Some seeds are prohibited except with special permission of the Director of Quarantine, who specifies conditions of importation. (c) Many commodities such as hops, cotton, peanuts in shell, potatoes, certain crop seeds, vines and specified plants may be imported only by approved importers under special conditions. (d) Certain plant products such as bulbs and timber (in logs or sawn) from specified areas may be imported only if accompanied by certificates showing that prescribed treatment has been given in the country of origin. (e) All nursery stock including bulbs must be grown in post-entry quarantine. Propagating material for commercial fruits, vines and berries are permitted importation only after being specially screened for virus diseases. It may only be imported by approved importers who are registered for this purpose. The numbers of plants which may be imported in any one year are limited.

3. *Notifiable Diseases.*—(i) *General.* (a) *Methods of Prevention and Control.* Provision exists in the *Health Acts* of all States for the compulsory notification of certain infectious diseases and for the application of preventive measures. When any such disease occurs, the local authority must be notified at once, and in some States notification must be made also to the Health Department.

As a rule, the local authorities are required to report from time to time to the Central Board of Health in each State on the health, cleanliness and general sanitary state of their several districts, and on the appearance of certain diseases. Regulations provide for the disinfection and cleansing of premises, and for the disinfection or destruction of bedding, clothing or other articles which have been exposed to infection. Regulations also provide that persons suspected to be suffering from, or to be carriers of, infectious disease must submit to clinical and laboratory examination. Persons suffering from certain communicable diseases, for example, smallpox and leprosy, are detained in isolation.

(b) *Diseases Notifiable and Cases Notified in each State and Territory.* The following tables show, for each State and Territory, the diseases notifiable in 1961 and 1962, and the number of cases notified. Diseases not notifiable in a State or Territory are indicated by an asterisk.

Factors such as the following affect both the completeness of the figures and the comparability from State to State and from year to year:—availability of medical aid; diagnostic practices of doctors—e.g. infectious hepatitis may not be diagnosed as such unless jaundice is also present; enforcement and follow-up of notifications by Health Departments; differences in sources of notifications; differences in definitions of notifiable diseases in *Health Acts*—e.g. puerperal fever and encephalitis; and varying degrees of attention to notification of diseases of minor importance.

**DISEASES NOTIFIABLE(a) IN EACH STATE AND TERRITORY OF AUSTRALIA  
AND NUMBER OF CASES REPORTED DURING 1961 AND 1962.**

Disease	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961									
Diseases notifiable in all States and Territories(b)—									
Acute rheumatism (rheumatic fever) ..	58	61	78	9	10	8	8	1	233
Ankylostomiasis ..	40	..	40	..	..	..	192	..	272
Brucellosis ..	11	25	1	..	5	..	..	..	42
Diarrhoea, infantile ..	198	604	142	3	48	14	218	6	1,233
Diphtheria ..	19	2	4	..	15	..	..	..	45
Encephalitis ..	32	22	8	11	2	..	..	..	75
Infectious hepatitis ..	6,050	3,515	1,022	1,406	262	304	61	281	12,901
Leprosy (Hansen's disease) ..	2	3	6	..	15	..	62	..	88
Meningococcal infection ..	41	46	35	5	2	18	1	2	150
Paratyphoid fever ..	1	1	(c)	1	6	..	1	..	9
Poliomyelitis(d) ..	201	50	141	44	2	11	..	..	450
Puerperal fever ..	58	7	25	..	3	..	3	..	97
Scarlet fever ..	285	493	97	129	45	40	2	12	1,103
Tuberculosis(e) ..	1,455	727	686	230	293	129	38	12	3,570
Typhoid fever ..	8	11	8	3	4	..	1	..	35
Typhus (flea, mite or tick borne) ..	..	..	13	..	4	..	..	..	17
									Total for the States in which the disease is notifiable
Diseases notifiable in some States and Territories(b)—									
Acute streptococcal nephritis ..	*	*	*	*	*	..	*	*	15
Amoebiasis ..	*	2	5	..	7	..	1	..	..
Anthrax ..	..	..	..	..	..	..	..	..	41
Ascariasis ..	41	..	..	..	..	..	..	..	..
Bilharziasis ..	..	..	..	..	..	..	..	..	113
Breast abscess ..	15	53	33	..	10	..	2	..	14
Chorea ..	3	7	(f)	1	..	..	3	..	6
Dengue ..	4	..	..	..	..	..	2	..	395
Dysentery, bacillary ..	..	95	40	97	117	6	40	..	2
Eclampsia ..	..	..	..	..	2	..	..	..	23
Erythema nodosum ..	..	22	(g)	1	..	..	..	..	1
Filariasis ..	..	1	..	..	..	..	..	..	26
Glandular fever ..	..	..	..	..	..	26	..	..	..
Helminthiasis ..	..	..	..	..	..	..	..	..	1
Homologous serum jaundice ..	..	..	..	1	..	..	..	..	24
Hydatid ..	..	11	..	1	..	12	..	..	20
Lead poisoning ..	..	..	19	..	1	..	..	..	108
Leptospirosis ..	7	..	88	..	13	..	..	..	47
Leukaemia ..	..	45	..	..	..	..	(h)	(h)	53
Malaria ..	..	8	32	2	2	1	7	1	41
Melioidosis ..	..	..	..	..	29	..	11	1	10
Ophthalmia ..	1	..	..	3	2	..	..	..	49
Ornithosis ..	..	..	4	..	..	..	..	..	131
Pleural effusion ..	..	31	(g)	..	18	..	..	..	..
Q-fever ..	..	..	131	..	..	..	..	..	..
Relapsing fever ..	..	..	..	..	..	..	..	..	1,098
Rubella ..	..	693	38	66	264	7	3	27	88
Salmonella infection ..	..	..	..	36	43	..	5	4	121
Staphylococcal infection (infancy) ..	78	42	1	..	..	..	..	..	53
Staphylococcal pneumonia ..	53	..	..	..	..	..	..	..	4
Taeniasis ..	..	..	4	..	..	..	..	..	52
Tetanus ..	..	11	33	2	5	..	1	..	508
Trachoma ..	..	..	..	124	369	..	15	..	..
Trichinosis ..	..	..	..	..	..	..	..	..	..
Venereal diseases—									
Syphilis ..	569	162	104	..	17	12	2	7	873
Gonorrhoea ..	3,296	1,003	1,383	..	119	234	34	36	6,105
Other..	202	..	124	..	..	..	27	..	353

(a) No cases of cholera, plague, smallpox, epidemic typhus or yellow fever were notified. (b) There are popular names for various diseases mentioned in the table above. While these names may not be clearly defined or acceptable for diagnostic purposes, the most common ones are listed here for the information of the lay reader:—hookworm (ankylostomiasis); undulant fever (brucellosis); St. Vitus dance (chorea); Weil's disease or seven-day fever or swamp fever (leptospirosis); parrot fever (ornithosis); childbed fever (puerperal fever); German measles (rubella). (c) Included with typhoid fever. (d) Cases confirmed by Poliomyelitis Surveillance Committee. (e) These are final figures as supplied by the Directors of Tuberculosis in each State. (f) Included with acute rheumatism (rheumatic fever). (g) Under the Queensland Health Acts notifications of tuberculosis include erythema nodosum and pleural effusion. (h) Notifiable from January, 1961. \* Not notifiable.

DISEASES NOTIFIABLE(a) IN EACH STATE AND TERRITORY OF AUSTRALIA  
AND NUMBER OF CASES REPORTED DURING 1961 AND 1962—continued.

Disease	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1962									
Diseases notifiable in all States and Territories(b)—									
Acute rheumatism (rheumatic fever) ..	21	79	112	10	9	12	4	..	247
Ankylostomiasis ..	8	..	66	..	15	..	210	..	299
Brucellosis ..	13	43	12	..	6	..	..	..	74
Diarrhoea, infantile ..	133	512	97	..	51	11	183	15	1,002
Diphtheria ..	9	29	5	4	17	1	..	..	65
Encephalitis ..	28	20	16	4	..	..	..	..	68
Infectious hepatitis ..	3,358	3,533	884	504	117	630	101	88	9,215
Leprosy (Hansen's disease) ..	..	..	3	..	16	..	43	..	62
Meningococcal infection ..	39	55	75	10	2	15	2	3	201
Paratyphoid fever ..	2	1	(c)	..	1	1	..	..	5
Poliomyelitis ..	177	20	38	17	4	..	1	2	259
Puerperal fever ..	52	2	18	..	..	2	13	..	87
Scarlet fever ..	318	576	96	183	28	39	1	4	1,245
Tuberculosis(d) ..	1,460	809	833	243	253	132	54	41	3,825
Typhoid fever ..	8	14	8	1	5	..	7	..	43
Typhus (flea, mite or tick borne) ..	1	..	14	..	..	..	..	..	15
									Total for the States in which the disease is notifiable
Diseases notifiable in some States and Territories(b)—									
Acute streptococcal nephritis ..	*	*	*	*	*	2	*	*	2
Amoebiasis ..	..	5	8	1	3	..	2	..	19
Anthrax ..	..	..	..	..	..	..	..	..	..
Ascariasis ..	37	..	..	..	..	..	..	..	37
Bilharziasis ..	..	..	..	..	..	..	..	..	..
Breast abscess ..	1	35	43	..	..	..	2	..	81
Chorea ..	1	4	(e)	..	..	..	3	..	8
Dengue ..	10	..	4	..	..	..	..	..	14
Dysentery (bacillary) ..	..	43	29	46	177	6	69	..	370
Eclampsia ..	..	..	..	..	..	..	..	..	..
Erythema nodosum ..	..	14	(f)	1	..	..	..	..	15
Filariasis ..	..	..	1	..	..	1	..	..	2
Glandular fever ..	..	..	..	..	..	30	..	..	30
Helminthiasis ..	..	4	..	..	..	..	..	..	4
Homologous serum jaundice ..	..	..	..	..	..	..	..	..	..
Hydatid ..	..	19	..	1	1	30	..	..	51
Lead poisoning ..	..	..	18	..	..	..	..	..	18
Leptospirosis ..	20	3	138	..	6	..	..	..	167
Leukaemia ..	..	49	..	..	..	..	..	..	49
Malaria ..	..	17	56	1	4	1	3	1	83
Melioidosis ..	..	..	..	..	..	..	..	..	..
Ophthalmia ..	..	..	..	1	29	..	..	17	47
Ornithosis ..	3	..	9	..	..	..	..	..	12
Pleural effusion ..	..	28	(f)	..	..	..	6	..	34
Q-fever ..	..	..	97	..	..	..	..	..	97
Relapsing fever ..	..	..	..	..	..	..	..	..	..
Rubella ..	..	1,556	18	543	94	14	8	17	2,250
Salmonella infection ..	..	..	..	69	49	..	4	3	125
Staphylococcal infection (infancy) ..	511	32	3	..	..	..	..	..	546
Staphylococcal pneumonia ..	13	..	..	..	..	..	..	..	13
Taeniasis ..	..	..	2	..	..	..	..	..	6
Tetanus ..	..	7	13	..	1	1	..	..	22
Trachoma ..	..	..	..	..	367	..	28	..	392
Trichinosis ..	..	..	..	..	..	..	..	..	..
Veneral diseases—									
Syphilis ..	447	62	68	..	16	1	5	2	601
Gonorrhoea ..	3,736	1,341	1,303	..	283	219	88	41	7,011
Other ..	220	..	60	..	..	..	9	..	289

(a) No cases of cholera, plague, smallpox, epidemic typhus or yellow fever were notified. (b) There are popular names for various diseases mentioned in these tables. While these names may not be clearly defined or acceptable for diagnostic purposes, the most common ones are listed here for the information of the lay reader:—hookworm (ankylostomiasis); undulant fever (brucellosis); St. Vitus dance (chorea); Weil's disease or seven-day fever or swamp fever (leptospirosis); parrot fever (ornithosis); childbed fever (puerperal fever); German measles (rubella). (c) Included with typhoid fever. (d) These are final figures as supplied by the Directors of Tuberculosis in each State. (e) Included with acute rheumatism (rheumatic fever). (f) Under the Queensland Health Acts notifications of tuberculosis include erythema nodosum and pleural effusion. \* Not notifiable.

(ii) *Specific Diseases.* (a) *Tuberculosis and Poliomyelitis.* Information on the number of cases of tuberculosis notified in each State and Territory by age groups for the years 1961 and 1962, and other details, are shown on page 702. Some data regarding deaths from tuberculosis are shown on page 391 of Chapter X. Vital Statistics.

Particulars of the cases of poliomyelitis notified in each State and Territory for the years 1956 to 1962, and of treatment and preventive measures, are shown on pages 703-4.

(b) *Infectious Hepatitis.* The following table shows the number of cases of infectious hepatitis notified in each State and Territory during the years 1958 to 1962.

**INFECTIOUS HEPATITIS: CASES NOTIFIED.**

State or Territory	1958	1959	1960	1961	1962 p
New South Wales .. .. .	3,261	3,183	4,925	6,050	3,358
Victoria .. .. .	1,053	1,452	2,385	3,515	3,533
Queensland .. .. .	469	762	713	1,022	884
South Australia .. .. .	307	749	1,121	1,406	504
Western Australia .. .. .	396	142	256	262	117
Tasmania .. .. .	51	21	44	304	630
Northern Territory .. .. .	45	53	23	61	101
Australian Capital Territory .. .. .	16	16	88	281	88
<b>Australia .. .. .</b>	<b>5,598</b>	<b>6,378</b>	<b>9,555</b>	<b>12,901</b>	<b>9,215</b>

(c) *Venereal Diseases.* The prevention and control of venereal diseases is the responsibility of State Health Departments. The necessary powers for the purpose are provided either by a special *Venereal Diseases Act* or by a special section of the *Health Act*. Venereal diseases are notifiable in all States except in South Australia, where however, the Director-General of Public Health is empowered to compel a venereal disease suspect to submit to medical examination and, if found infected, to medical treatment. While the provisions of the legislation differ from State to State, the Acts usually make it obligatory upon the patient to report for and continue under treatment until certified as cured. Treatment of venereal disease must be by a registered medical practitioner. Facilities for treatment of venereal disease free of charge may be arranged at subsidized hospitals or at special clinics. Penalties may be imposed on a patient who fails to continue under treatment. Clauses are inserted in the Acts which aim at preventing the marriage of any infected person, or the employment of an infected person in the manufacture or distribution of foodstuffs.

## § 5. Commonwealth Grants to Organizations Associated with Public Health

1. *General.*—In addition to providing the services mentioned in §§ 2-4 above, the Commonwealth Government gives financial assistance to certain organizations associated with public health. Examples of organizations included in this category are the National Fitness Organizations, the Royal Flying Doctor Service of Australia, the Red Cross Blood Transfusion Service, the Lady Gowrie Child Centres, and the National Heart Foundation of Australia.

2. *National Fitness.*—In 1938, arising from a recommendation of the National Health and Medical Research Council, the Commonwealth Government appointed a National Co-ordinating Council for National Fitness, under the Commonwealth Minister for Health, to effect collaboration of Commonwealth, State and Local Government authorities in the National Fitness Movement. Following the recommendations of the first Co-ordinating Council meeting in 1939, the Commonwealth Government agreed to make available an annual sum of £20,000 for five years, and grants were allocated to each State for purposes of organization and to each of the six Australian universities to establish lectureships in physical education.

The movement was placed on a statutory basis with the passing of the *National Fitness Act 1941*. The Act provides for a Commonwealth Council for National Fitness to advise the Minister for Health concerning the promotion of national fitness. It provides also for the establishment of a Trust Account, known as the National Fitness Fund, to assist in financing the movement. In June, 1942, the annual appropriation from revenue to the National Fitness Fund was increased to £72,500 to include grants to the State Education

Departments and for the work in the Australian Capital Territory. The annual appropriation was increased to £100,000 in 1962, the increase of £27,500 being made available to the National Fitness Councils in the States. The £100,000 is disbursed as follows:—State National Fitness Councils, £64,454; Universities, £12,400; State Education Departments, £17,000; central administration, £3,396; and Australian Capital Territory, £2,750.

The annual grant of £2,750 allocated in the Australian Capital Territory is distributed mainly on a £1 for £1 basis to youth and sports organizations for the purchase of equipment, the development of coaching schemes, and the extension of club and camp facilities.

**3. Royal Flying Doctor Service of Australia.**—The purpose of the Royal Flying Doctor Service of Australia is to provide medical and dental services to persons in isolated areas. Most remote homesteads are equipped with two-way radio sets which they use for receiving ordinary radio programmes, participating in the School of the Air, and for contacting each other. In cases of minor illness or injury, they also use these sets to seek medical advice. If the illness or injury is serious, a doctor flies to the homestead and, if necessary, flies the patient to the nearest hospital. Standard medicine chests are supplied by the service. Each chest contains a first-aid book and instructions on the use of the various drugs and medical supplies in it. Further instructions are given by doctors over the air.

From time to time, special purpose work is undertaken in connexion with flood relief, searching for lost parties and co-ordinating cattle movements.

The service is not conducted for profit. In some sections, small charges are made for particular services or a fixed annual charge is levied on graziers. Other sections rely on voluntary contributions from those who use their services. Donations and government contributions help to provide much of the overhead and capital expenditure incurred each year.

The Commonwealth has made an annual grant to the Service for operational expenses since 1936. Prior to that, from 1928 to 1931, the Commonwealth subsidized the Australian Inland Mission Aerial Medical Service. The Commonwealth annual grant to the Royal Flying Doctor Service of Australia towards maintenance was increased from £40,000 to £55,000 per annum for three years from 1st July, 1962. The Commonwealth grant towards capital expenditure was increased from £27,500 to £40,000 per annum for the same period. This capital expenditure grant is made on a £1 for £1 basis, in respect of approved projects.

The Royal Flying Doctor Service of Australia is conducted by a federal council comprising representatives of six sections, namely Queensland, New South Wales, Victoria, South Australia, Western Australia and the Eastern Goldfields of Western Australia. The Queensland, New South Wales and South Australian sections are centred in their own States, but in Western Australia there are three centres, that in the far north being under the control of the Victorian section, and that in the south-east under the control of the Eastern Goldfields section. The third, which has bases at Port Hedland and Meekatharra, is sponsored by the Western Australian section.

**4. Red Cross Blood Transfusion Service.**—The Australian Red Cross Society conducts a blood transfusion service in all States.

Before 1952–53, the cost of the Red Cross Blood Transfusion Service was borne by the Red Cross Society with assistance from the State Governments. In 1952, the Commonwealth made an amount of £50,000 available to the Red Cross Society through the State Governments. The States were to continue to assist the society at the same level as previously and make arrangements with the society to share any deficit still remaining.

The Commonwealth recognized that the proper maintenance of a blood transfusion service was of the utmost importance to the welfare of the community and that the service was one eminently suited for operation by the Australian Red Cross Society. In March, 1954, therefore, the Commonwealth offered each State Government a grant equal to 30 per cent. of the certifiable operating expenses incurred by the Society in the conduct of the blood transfusion service in that State. The grant was to be made subject to the condition that the government of the State concerned agreed to meet 60 per cent. of the cost of operating the service in that State, leaving the society to meet the remaining 10 per cent. of the cost. All States accepted this proposal. The payments made by the Commonwealth government to the State governments in 1961–62 were as follows:—New South Wales, £47,260; Victoria, £52,515; Queensland, £33,647; South Australia, £19,231; Western Australia, £16,115; Tasmania, £5,776; total, £174,544.

**5. Lady Gowrie Child Centres.**—In 1940, the Commonwealth Government established a pre-school demonstration centre in each of the six capital cities. These centres are known as the Lady Gowrie Child Centres and are administered by the Australian Pre-school Association. A grant of £50,000 per annum is made available by the Commonwealth towards the operation of the centres.



The specialized function of the centres is that of demonstration and research, and the programmes are carried out under the supervision of the Federal Pre-school Officer. Each centre is concerned with a study of the factors promoting and retarding physical and mental health in young children, and in demonstrating an educational health programme based on the developing needs of children aged 3 to 6 years.

The centres are used for observation by university students of Medicine, Psychology, Education, Social Studies, Architecture, Physical Education, Teacher Training Colleges, Nursing Colleges and Domestic Science.

6. **National Heart Foundation of Australia.**—The National Heart Foundation of Australia is a national organization established to promote research in cardiovascular disease, to rehabilitate heart sufferers and to foster the dissemination of information about heart diseases.

Formed in 1960, as a result of a public appeal yielding £2,500,000 to which the Commonwealth Government contributed £10,000, the Foundation has its headquarters in the John Curtin School of Medical Research of the Australian National University.

The organization is controlled by a Board of Directors assisted by various Committees. State Divisions with their own administrations deal especially with rehabilitation and education.

From its inception to the end of 1962, the Foundation has allocated over £370,000 for grants-in-aid towards research in university departments, hospitals and research institutes, research fellowships tenable in Australia and overseas, and oversea travel grants. Most of the annual expenditure of about £300,000 is devoted to supporting research in cardiovascular disease.

## INSTITUTIONS

NOTE.—Institutions referred to under this heading are classified into the following groups:—(i) Public (other than mental); (ii) Mental; (iii) Private; (iv) Repatriation; (v) Isolation (leper).

### § 1. Public Hospitals (other than Mental Hospitals)

1. **General.**—The statistics shown in this section refer to all institutions affording hospital relief, whether general or special, with the exception of mental hospitals, repatriation hospitals, leper hospitals, and private hospitals conducted commercially. They include hospitals wholly provided for by the State, hospitals partially subsidized by the State or by State endowments but receiving also private aid, and hospitals established and endowed by individuals for the benefit of the needy generally. All the State capitals have several large and well-equipped hospitals, and there is at least one in every important town. In large centres there are special hospitals for infectious diseases, tubercular patients, women, children, and patients suffering from chronic diseases.

The particulars given herein refer to public hospitals at the latest available date.

2. **Number, Staff and Accommodation.**—Details regarding the number of public hospitals, staff, and accommodation for the year 1960–61 are given in the following table.

**PUBLIC HOSPITALS: NUMBER, STAFF AND ACCOMMODATION, 1960-61**

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Number of hospitals	268	140	138	66	91	28	4	1	736
Medical staff—									
Honorary ..	4,681	1,551	44	549	356	112	..	78	7,371
Salaried ..	863	886	809	182	137	117	16	5	3,015
Total ..	5,544	2,437	853	731	493	229	16	83	10,386
Nursing staff(a) ..	14,141	9,811	5,741	2,889	3,215	1,385	167	258	37,607
Accommodation—									
Number of beds and cots ..	23,135	13,108	12,376	4,475	4,590	2,569	481	305	61,039

(a) Qualified and student nurses, assistant nurses, assistant nurse trainees, nursing aides and nursing aide trainees.

3. **In-Patients Treated.**—The following table furnishes particulars of in-patients treated. The figures shown refer to cases, that is to say, a person who is admitted to hospital twice during a year is counted twice. Newborn babies are excluded unless they remain in hospital after their mothers' discharge.

## PUBLIC HOSPITALS: IN-PATIENTS TREATED, 1960-61

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
In-patients at beginning of year—									
Males ..	7,114	3,716	4,025	1,251	1,461	909	163	73	18,712
Females ..	9,759	5,438	4,476	1,563	1,595	1,019	158	142	24,150
Persons ..	16,873	9,154	8,501	2,814	3,056	1,928	321	215	42,862
Admissions and re-admissions during year—									
Males ..	186,175	99,031	93,665	36,640	41,369	14,206	3,926	3,044	478,056
Females ..	291,061	165,761	119,638	47,932	48,980	20,920	4,452	5,398	704,142
Persons ..	477,236	264,792	213,303	84,572	90,349	35,126	8,378	8,442	1,182,198
Total in-patients (cases) treated—									
Males ..	193,289	102,747	97,690	37,891	42,830	15,115	4,089	3,117	496,768
Females ..	300,820	171,199	124,114	49,495	50,575	21,939	4,610	5,540	728,292
Persons ..	494,109	273,946	221,804	87,386	93,405	37,054	8,699	8,657	1,225,060
Discharges—									
Males ..	178,009	93,812	90,327	35,063	40,216	13,551	3,809	2,973	457,760
Females ..	284,636	161,628	116,961	46,595	47,906	20,481	4,384	5,338	687,929
Persons ..	462,645	255,440	207,288	81,658	88,122	34,032	8,193	8,311	1,145,689
Deaths—									
Males ..	7,991	5,108	3,453	1,642	1,299	679	108	62	20,342
Females ..	6,444	4,129	2,685	1,360	1,002	513	75	69	16,277
Persons ..	14,435	9,237	6,138	3,002	2,301	1,192	183	131	36,619
In-patients at end of year—									
Males ..	7,289	3,827	3,910	1,186	1,315	885	172	82	18,666
Females ..	9,740	5,442	4,468	1,540	1,667	945	151	133	24,086
Persons ..	17,029	9,269	8,378	2,726	2,982	1,830	323	215	42,752
Average daily number resident ..	16,218	8,606	8,130	2,758	2,948	1,833	310	206	41,009

In addition to those admitted to the hospitals, there are large numbers of out-patients treated. During 1960-61, there were 1,168,067 out-patients treated in New South Wales, 589,947 in Victoria, 599,010 in Queensland, 110,408 in South Australia, 136,000 (estimated) in Western Australia, 100,891 in Tasmania, 75,865 in the Northern Territory and 14,214 in the Australian Capital Territory, making an estimated total for Australia of 2,794,402. The figures quoted refer to cases, as distinct from persons and attendances.

4. Revenue and Expenditure.—Details of the revenue and expenditure for the year 1960-61 are shown in the next table. The revenue includes the Commonwealth Hospital Benefits Scheme.

PUBLIC HOSPITALS: REVENUE AND EXPENDITURE, 1960-61  
(£'000)

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Revenue—									
Government aid ..	27,307	16,340	11,181	5,965	7,401	2,005	1,052	743	78,499
Commonwealth Hospital Benefits, etc.		2,792	2,775						
Municipal aid ..		20	..						
Public subscriptions, legacies, etc.	155	2,452	40	101	31	..	..	..	2,779
Fees ..	11,814	7,156	1,927	2,066	2,298	709	66	149	26,185
Other ..	524	491	204	372	111	8	..	3	1,713
Total ..	39,800	29,251	16,127	8,707	9,841	3,660	1,118	895	109,399
Expenditure—									
Salaries and wages ..	23,629	12,930	8,170	4,294	4,985	1,768	504	397	56,677
Upkeep and repair of buildings and grounds ..	1,157	617	543	409	296	47	70	27	3,166
All other ordinary ..	10,954	9,585	6,133	2,217	2,857	896	341	167	33,150
Capital ..	3,947	5,044	1,480	1,823	1,843	939	203	284	15,563
Total ..	39,687	28,176	16,326	8,743	9,981	3,650	1,118	875	108,556

(a) For New South Wales, included in Other.

5. **Summary.**—A summary, for the years 1956–57 to 1960–61, of the number of public hospitals in Australia, medical and nursing staffs, beds, admissions, in-patients treated, out-patients, deaths, average daily number resident, revenue and expenditure is given in the following table.

**PUBLIC HOSPITALS: AUSTRALIA**

Particulars	1956–57	1957–58	1958–59	1959–60	1960–61
Hospitals .. ..	729	735	733	736	736
Medical staff(a) .. ..	8,560	9,098	9,354	9,954	10,386
Nursing staff(b) .. ..	31,006	32,436	34,372	36,023	37,607
Beds and cots .. ..	55,801	56,618	58,544	60,203	61,039
Admissions during year .. ..	1,028,320	1,085,503	1,133,172	1,153,690	1,182,198
Total in-patients (cases) treated	1,065,045	1,123,799	1,172,861	1,196,111	1,225,060
Out-patients (cases)(c) .. ..	2,583,600	2,641,000	2,665,700	2,754,400	2,794,402
Deaths .. ..	33,267	33,689	35,848	35,407	36,619
Average daily number resident	37,554	38,470	40,021	40,672	41,009
Revenue .. .. £'000	82,182	87,692	90,512	98,976	109,399
Expenditure .. .. £'000	83,922	86,817	90,157	97,987	108,556

(a) Honorary and salaried. (b) Qualified and student nurses, assistant nurses, assistant nurse trainees, nursing aides and nursing aide trainees. (c) Partly estimated.

**§ 2. Mental Hospitals**

1. **General.**—Statistics of mental hospitals presented in the following tables, with the exception of those relating to revenue and expenditure, include particulars of the two authorized hospitals conducted by religious organizations in New South Wales. The figures exclude those of reception houses and observation wards in gaols. There are no mental hospitals in the Northern Territory or the Australian Capital Territory.

2. **Hospitals, Staff and Accommodation.**—Particulars regarding the number of hospitals, the medical and nursing staff, and accommodation are given in the following table for the year 1961. Figures for Victoria and Western Australia relate to 31st December, 1961. Figures for the other States relate to 30th June, 1961.

**MENTAL HOSPITALS: NUMBER, STAFF, ACCOMMODATION, 1961**

Particulars	N.S.W.	Vic.(a)	Q'land (b)	S. Aust.	W. Aust. (a)	Tas.	Aust.
Number of Hospitals .. ..	15	11	5	2	4	1	38
Medical Staff—							
Males .. ..	62	105	17	12	10	3	209
Females .. ..	13	21	4	3	..	..	41
Persons .. ..	(c) 75	126	21	15	10	3	(c) 250
Nursing Staff and Attendants—							
Males .. ..	1,209	1,249	602	238	204	107	3,609
Females .. ..	1,372	1,358	489	270	142	95	3,726
Persons .. ..	2,581	2,607	1,091	508	346	202	7,335
Accommodation—							
Number of beds and cots ..	13,324	8,950	4,269	2,824	1,737	892	31,966

(a) 31st December, 1961. (b) Includes the Epileptic Home. (c) In addition, there are in New South Wales 43 visiting specialists who are paid for their services.

3. **Patients.**—Information regarding patients treated during 1960–61 is given in the following table.

MENTAL HOSPITALS: PATIENTS, DEATHS, ETC., 1960-61

Particulars	N.S.W.	Vic. (a)	Q'land (b)	S. Aust.	W. Aust. (a)	Tas.	Aust.
Number of patients at beginning of year—							
Males .. .. .	6,318	4,759	2,420	1,394	1,093	372	16,356
Females .. .. .	6,347	4,841	1,944	1,170	878	415	15,595
Persons .. .. .	12,665	9,600	4,364	2,564	1,971	787	31,951
Admissions and re-admissions (excluding absconders retaken and transfers from other mental hospitals)—							
Males .. .. .	1,290	1,920	722	403	165	245	4,745
Females .. .. .	1,384	1,566	635	345	79	247	4,256
Persons .. .. .	2,674	3,486	1,357	748	244	492	9,001
Number of persons treated during year—							
Males .. .. .	7,608	6,679	3,142	1,797	1,258	617	21,101
Females .. .. .	7,731	6,407	2,579	1,515	957	662	19,851
Persons .. .. .	15,339	13,086	5,721	3,312	2,215	1,279	40,952
Discharges (including absconders not retaken)—							
Males .. .. .	1,066	1,461	601	321	93	263	3,805
Females .. .. .	1,196	1,175	576	269	80	219	3,515
Persons .. .. .	2,262	2,636	1,177	590	173	482	7,320
Deaths—							
Males .. .. .	409	339	117	105	63	14	1,047
Females .. .. .	455	338	116	111	44	28	1,092
Persons .. .. .	864	677	233	216	107	42	2,139
Number of patients at end of year—							
Males .. .. .	6,133	4,879	2,424	1,371	1,102	340	16,249
Females .. .. .	6,080	4,894	1,887	1,135	833	415	15,244
Persons .. .. .	12,213	9,773	4,311	2,506	1,935	755	31,493
Average daily number of patients resident—							
Males .. .. .	6,325	4,142	2,256	1,369	988	356	15,436
Females .. .. .	5,990	4,184	1,681	1,085	684	415	14,039
Persons .. .. .	12,315	8,326	3,937	2,454	1,672	771	29,475
Number of patients at end of year per 1,000 of population—							
Males .. .. .	3.06	3.31	3.13	2.71	2.94	1.91	3.06
Females .. .. .	3.08	3.36	2.54	2.32	2.31	2.40	2.93
Persons .. .. .	3.07	3.34	2.84	2.51	2.63	2.16	3.00
Average number of patients resident in mental hospitals per 1,000 of population—							
Males .. .. .	3.19	2.84	2.94	2.74	2.66	1.91	2.94
Females .. .. .	3.07	2.91	2.28	2.24	1.91	2.35	2.73
Persons .. .. .	3.13	2.88	2.62	2.50	2.29	2.13	2.83

(a) Year ended 31st December, 1961.

(b) Includes persons treated at the Epileptic Home.

Persons who are well advanced towards recovery are allowed to leave the hospitals and live with their relatives or friends, but they are under supervision and their names are kept in the records. These persons have been included in the table above as patients at the end of the year.

4. Revenue and Expenditure, 1960-61.—Mental hospitals are maintained by the State governments. They derive a small proportion of their revenue from other sources (chiefly patients' fees, pharmaceutical benefits and sale of farm produce), but in 1960-61 this source provided less than six per cent. of all their revenue. For a statement on the funds provided by the Commonwealth Government for mental hospitals, see para. 3, Mental Hospitals, page 700.

In New South Wales, the expenditure includes the cost of Broken Hill patients treated in South Australian mental hospitals.

**MENTAL HOSPITALS: FINANCES, 1960-61**  
(£'000)

Particulars	N.S.W. (a)	Vic.	Q'land (b)	S. Aust.	W. Aust.	Tas.	Australia
Revenue (excluding Government Grants)—							
Fees of patients ..	524	286	97	63	40	17	1,027
Other ..	60	259	9	31	23	3	385
<i>Total</i> ..	<i>584</i>	<i>545</i>	<i>106</i>	<i>94</i>	<i>63</i>	<i>20</i>	<i>1,412</i>
Expenditure—							
Salaries and wages	3,709	4,600	1,483	652	619	320	11,383
Upkeep and repair of buildings, etc.	408	285	9	84	74	13	873
All other ..	2,293	2,332	859	442	302	172	6,400
Capital(c) ..	1,420	1,080	357	93	68	112	3,130
<i>Total</i> ..	<i>7,830</i>	<i>8,297</i>	<i>2,708</i>	<i>1,271</i>	<i>1,063</i>	<i>617</i>	<i>21,786</i>

(a) Excludes the two authorized hospitals conducted by religious organizations. (b) Includes the Epileptic Home. (c) Capital expenditure includes purchases of land, cost of new buildings and additions to buildings.

5. **Summary for Australia.**—The following table gives a summary relating to mental hospitals in Australia for each of the years 1956-57 to 1960-61.

**MENTAL HOSPITALS: SUMMARY, AUSTRALIA**

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Hospitals .. .. .	36	37	38	38	38
Medical staff .. .. .	188	206	219	232	250
Nursing staff and attendants ..	6,470	6,761	6,895	7,027	7,335
Beds .. .. .	30,617	31,587	32,025	32,068	31,996
Admissions .. .. .	8,276	9,244	9,477	8,854	9,001
Discharged as recovered, relieved, etc.	5,282	6,288	6,797	8,052	7,320
Deaths .. .. .	2,672	2,468	2,658	2,394	2,139
Patients at end of year .. .. .	32,775	33,521	33,543	31,951	31,493
Average daily number of patients resident .. .. .	29,032	29,323	29,553	29,209	29,475
Revenue (excluding Government grants) .. .. .	916	1,027	1,071	1,139	1,412
Total expenditure .. .. .	17,553	18,236	18,196	20,073	21,786

6. **Patients in Mental Hospitals.**—The total number of inmates of mental hospitals and patients on trial leave at the end of each year from 1957 to 1961 is shown in the following table. A more rational attitude towards the treatment of mental cases has resulted in a greater willingness in recent years to submit afflicted persons to treatment at an early stage, and an increase in the number of recorded cases, therefore, would not necessarily imply an increase in mental diseases. The numbers of patients in mental hospitals in the several States is affected to some extent by differences in practice. For instance, in some States there is a greater tendency to treat certain mental diseases in clinics attached to general hospitals. Figures for Victoria and Western Australia relate to 31st December of the year shown; figures for the other States relate to 30th June of the year shown.

## PATIENTS IN MENTAL HOSPITALS

State	1957	1958	1959	1960	1961
New South Wales .. ..	13,741	13,761	13,792	12,665	12,213
Victoria .. ..	9,187	9,800	9,739	9,600	9,773
Queensland(a) .. ..	4,657	4,610	4,624	4,364	4,311
South Australia .. ..	2,592	2,667	2,643	2,564	2,506
Western Australia .. ..	1,845	1,926	1,966	1,971	1,935
Tasmania .. ..	753	757	779	787	755
<b>Australia .. ..</b>	<b>32,775</b>	<b>33,521</b>	<b>33,543</b>	<b>31,951</b>	<b>31,493</b>

(a) Includes persons treated at the Epileptic Home.

## § 3. Private Hospitals

1. General.—In addition to the other hospitals referred to in previous sections, there are private hospitals in each State. The figures shown in the following table refer to those private hospitals which have been approved for the payment of hospital benefits under the Commonwealth *National Health Act* 1953–1962.

2. Hospitals, Accommodation and Patients.—The number of these hospitals and the number of beds and patients are shown in the following table.

## PRIVATE HOSPITALS: AUSTRALIA

State or Territory	1957	1958	1959	1960	1961
--------------------	------	------	------	------	------

## NUMBER OF HOSPITALS

New South Wales .. ..	398	410	429	444	461
Victoria .. ..	226	240	239	256	254
Queensland .. ..	61	69	74	79	92
South Australia .. ..	125	125	140	144	143
Western Australia .. ..	52	60	63	74	79
Tasmania .. ..	20	21	28	33	32
Northern Territory .. ..	..	..	..	..	..
Australian Capital Territory .. ..	..	..	..	..	..
<b>Australia .. ..</b>	<b>882</b>	<b>925</b>	<b>973</b>	<b>1,030</b>	<b>1,061</b>

## NUMBER OF HOSPITAL BEDS

New South Wales .. ..	7,001	7,438	8,172	8,864	9,678
Victoria .. ..	4,416	4,827	4,830	5,013	4,998
Queensland .. ..	1,765	1,877	1,949	2,162	2,445
South Australia .. ..	2,242	2,382	2,742	2,796	2,866
Western Australia .. ..	1,450	1,554	1,605	1,799	1,945
Tasmania .. ..	481	478	607	665	687
Northern Territory .. ..	..	..	..	..	..
Australian Capital Territory .. ..	..	..	..	..	..
<b>Australia .. ..</b>	<b>17,355</b>	<b>18,556</b>	<b>19,905</b>	<b>21,299</b>	<b>22,619</b>

PRIVATE HOSPITALS: AUSTRALIA—*continued*

State or Territory				1957	1958	1959	1960	1961
NUMBER OF HOSPITAL PATIENTS (AVERAGE DAILY NUMBER RESIDENT)								
New South Wales	..	..	..	5,812	6,044	6,398	7,129	7,955
Victoria	..	..	..	3,319	3,354	3,494	3,620	4,014
Queensland	..	..	..	1,341	1,305	1,476	1,708	1,905
South Australia	..	..	..	1,649	1,725	1,956	2,049	2,255
Western Australia	..	..	..	1,019	1,186	1,362	1,524	1,707
Tasmania	..	..	..	351	345	400	510	573
Northern Territory	..	..	..	..	..	..	..	..
Australian Capital Territory	..	..	..	..	..	..	..	..
<i>Australia</i>	..	..	..	<i>13,491</i>	<i>13,959</i>	<i>15,086</i>	<i>16,540</i>	<i>18,409</i>

## § 4. Repatriation Hospitals

The medical care of eligible ex-servicemen and dependants of deceased ex-servicemen is a major function of the Commonwealth Repatriation Department, which provides a comprehensive service.

In-patient treatment is provided at Repatriation General Hospitals in each capital city, and at auxiliary hospitals in all States except Tasmania. "Anzac Hostels" are maintained in Queensland and Victoria for long-term patients. In-patient treatment may also be provided in country hospitals at the Department's expense in certain circumstances. Mental patients requiring custodial care are, by agreement with the State Governments, accommodated at the expense of the Department in mental hospitals administered by the State authorities.

The average daily number of patients resident in Repatriation General Hospitals during the year ended 30th June, 1962, was 3,163.

## § 5. Isolation (Lepor) Hospitals

Isolation hospitals for the care and treatment of persons suffering from Hansen's disease (leprosy) are located at Little Bay, New South Wales; Fantome Island, North Queensland; Derby, Western Australia; and East Arm Settlement, Northern Territory. Special wards for the isolation of leprosy patients have been provided at Fairfield (Victoria) and Wooroloo (Western Australia). Peel Island (Queensland) Hospital was closed down on 5th August, 1959, the patients being transferred to the chronic disease section of South Brisbane Hospital. At the end of 1962, there were eight cases at Little Bay, 21 at Fantome Island, six at South Brisbane Hospital, 179 at Derby, two at Wooroloo, 187 at East Arm Settlement and 7 at Fairfield. Of the 410 cases, 330 were full-blood aboriginals, 42 were half-caste aboriginals, two were Pacific Islanders, three were Asians and 33 were Europeans.

## CHAPTER XVIII

## EDUCATION, CULTURAL ACTIVITIES AND RESEARCH

NOTE.—For the most recent statistics available on subjects dealt with in this Chapter, reference should be made to the series of mimeographed bulletins *Social Statistics* and *University Statistics* issued by this Bureau. The *Quarterly Summary of Australian Statistics* contains summarized information on these subjects, and financial aspects are dealt with in the annual bulletin *Finance, Part I.—Public and Private Finance*.

## EDUCATION

NOTE.—An account of the development of the Australian school system up to 1929 may be found in Official Year Books Nos. 1, 2, 17 and 22. In Official Year Book No. 40, a review of changes which occurred up to 1951 and of the practices then current was presented from material furnished by the Commonwealth Office of Education, which contributed much of the textual matter in the following sections. The information relating to the educational programme applies mainly to the year 1962. The statistics given in the tables relate to 1961.

## § 1. Education in Australian Schools

1. Administration and Organization.—(i) *General*. In Australia, the provision of schools is mainly a responsibility of the governments of the States. During the nineteenth century, all six Australian colonies had established systems of compulsory education, beginning with the *Education Act* in Victoria in 1872, and followed by similar Acts in Queensland (1875), South Australia (1875), New South Wales (1880), Tasmania (1893), and Western Australia (1893). These Acts, with subsequent amendments, constitute the legal basis of compulsory education in the Australian States to-day.

School attendance is compulsory throughout Australia between the ages of 6 and 14 at least; in New South Wales the minimum leaving age is 15, and in Tasmania it is 16. An increasing number of children continue their education after reaching the minimum leaving age.

The *Education Acts* require that all children between the prescribed ages must attend either a government school or some other recognized educational institution. Children may be exempted from the requirement of compulsory attendance if they live too far from a school or suffer a physical disability. These children usually receive correspondence tuition.

The school year in Australia begins at the end of January or early in February; it ends in mid-December. The long vacation is taken over the summer months (December to February) and two short vacations divide the school year into three terms.

At government primary schools, it is usual for both boys and girls to attend the same school; at the secondary level, practices vary. Non-government schools cater mainly for boys and girls separately.

(ii) *Government School Systems*. Government schools are a responsibility of the six State governments, except in the Commonwealth territories. Although the educational systems are not identical, they have many similar features. Responsibility for framing educational policy and having it put into effect rests with a Minister for Education, who is a member of the State Cabinet.

The administrative authority in each State is an Education Department headed by a Director-General, or Director of Education. Separate divisions of the Education Department in each State administer primary, secondary and technical education (in New South Wales there is a separate Department of Technical Education). Other divisions look after such matters as the recruitment and training of teachers, pupil guidance, research and the education of atypical children.

In some States, administration has been decentralized to a degree by the appointment of "Area" or "Regional" directors, who are responsible for policy in the area which they control.

Tuition at government primary schools in all States is free. No fees are charged at secondary schools, except in Queensland, where a system of State scholarships has met the cost of fees for most pupils. By 1964, these tuition fees will be abolished in Queensland. Parents usually are expected to bear the cost of text-books, prescribed uniforms, and charges for such things as the use of sports materials. However, income tax concessions exist in respect of these expenditures.



(iii) *Non-Government Schools Systems.* More than three-quarters of the children at non-government primary and secondary schools attend Roman Catholic schools, which form a highly developed but not centralized system. At the primary level, these children normally attend mixed parish schools, but at the secondary level there are boys' schools, approximately half taking boarders, and girls' schools. Some of the small convent schools in country districts enrol young boys as well as girls. The organization of Roman Catholic schools is primarily on a diocesan basis under the general direction of the bishop, although many of the religious orders which conduct schools are Australia-wide, and have their own internal organization.

The majority of other non-government schools, sometimes known as "private" or "independent" schools, are conducted by, or are under the auspices of, various religious denominations, particularly the Church of England, Presbyterian, and Methodist Churches. Others are conducted by the Baptist, Lutheran, Congregational and Seventh-day Adventist Churches and by smaller religious groups. There are Jewish schools in several capital cities. A few non-government schools, including some of the foremost, are undenominational and conducted under the auspices of corporate bodies.

The methods adopted by the educational authorities to ensure an acceptable standard of education at non-government schools vary from State to State. In New South Wales, Victoria, Western Australia and Tasmania, these schools are regularly inspected. In Victoria and Tasmania, schools and teachers must be registered. In Queensland, eight grammar schools, which exist by statutory authority and are subsidized by the State, are subject to annual inspection. Other non-government schools in Queensland, and also those in South Australia, are not subject to inspection.

The principals of a number of the larger non-government schools have formed organizations with both State and Australia-wide coverage, namely, the Headmasters' Conference of Australia, and the Headmistresses' Association of Australia.

2. *Schools and Courses.*—(i) *Primary Education in Government Schools.* Though school attendance is not compulsory until the age of six, most Australian children begin school when they are five, attending infants' schools or infants' classes attached to a primary school. In some States, the first year in the infants' department is known as "kindergarten".

The emphasis in infants' classes, which occupy two or three years, is on general development, play activities and the informal aspects of education, with a gradual shift towards more formal activities in the second and third years. Creative expression through drawing, dancing, handwork, dramatization, painting and similar activities is encouraged. Attention is given to speech training and to activities with music.

At the end of their infants' school training, most children are able to read with some fluency, carry out simple arithmetical operations founded on the basic number facts, and write in pencil. In addition, they have acquired elementary skills in art, music and the like.

At about the age of eight, most children pass into the primary school proper, where they usually spend four or five years. Primary schools are normally provided when and where there is sufficient population to justify them. Irrespective of the size or the location of the school, standards of tuition do not vary appreciably, because teachers within a State follow similar courses of training and transfer freely between metropolitan and country areas.

The Education Departments prescribe syllabuses of instruction, which are drawn up with the assistance of expert committees. The primary syllabuses have an emphasis on basic subjects like reading, writing and arithmetic, social studies and oral language, but the teacher has some freedom to modify courses to suit local circumstances and the varying abilities of his students.

Children attend primary schools in their own districts, usually within walking distance of their homes, on five days each week. The school day is broken up into three or four sessions by a lunch break and by a morning and sometimes an afternoon recess. The total period of instruction is 4½ to 5 hours' daily with individual subject lessons lasting 20 to 30 minutes. Periods are set aside for physical education and sport. One teacher generally has charge of a class and teaches it all of the subjects set out in the curriculum for the particular grade.

Pupils do not, as a rule, sit for a public examination during or at the end of their primary course, and progression from primary to secondary school is automatic. Allocation to particular schools or particular courses is based on the recommendations of the headmaster, general ability tests, tests of achievement in the basic subjects and parents' wishes.

In South Australia, pupils may proceed to secondary school on receiving the Progress Certificate, which is awarded on satisfactory completion of the seventh grade, the highest grade at primary level. Until 1962, pupils in Queensland sat for a public examination before proceeding to secondary schooling.

(ii) *Secondary Education in Government Schools.* The age of transfer from a government primary to secondary school is usually between 12 and 13. Most secondary schools in the country are co-educational; in the cities the practice varies according to the State and the type of school concerned.

In the cities and larger country centres, secondary courses are provided in separate schools from primary courses, but in less populous areas secondary classes sometimes share buildings with primary classes.

The secondary student takes up new studies such as foreign languages and technical or commercial subjects, and moves on to more specialized studies in natural and social sciences and mathematics. The study of basic subjects begun in primary school is continued. The actual subjects studied depend on the ability of the pupil and the type of school. A school day is divided into "periods", and the children are taught by a number of teachers, each specializing in a particular subject or group of subjects.

To meet the varying abilities and needs of students, various kinds of secondary schools have been established in which different types of education are provided, although in country areas secondary schools tend necessarily to be comprehensive and offer a full range of secondary courses. But, following the re-examination by expert committees in all States of the problems associated with the provision of appropriate secondary education for all, significant changes in the structure and curricula of secondary schools are taking place. In New South Wales, for example, following a committee's recommendation that the secondary curriculum should offer a core of common basic education to all students, an increasing number of secondary schools are becoming comprehensive; in future, pupils of different aptitudes and interests in a given locality will attend the same secondary school, undertake this core of common basic studies, and in addition specialize according to their proven abilities and interests.

The main types of government secondary schools are described below.

*High Schools.* Until recently, high schools were organized on traditionally academic lines, offering courses of four to six years' duration which prepared students for public examinations qualifying them for entry to universities, teachers' colleges, other tertiary institutions and the public service. Curricula varied, but usually included English language and literature, foreign languages, mathematics, physics, chemistry, biology, history, and social sciences. In the comprehensive or multi-purpose high schools, which are becoming more common, a broader range of subjects is offered. There are high schools specializing in technical and commercial subjects, and as mentioned below, in agricultural subjects.

*Junior Secondary Schools.* Junior secondary schools provide general education, but also give pupils preparatory vocational training in trade, technical, commercial or agricultural courses, and assist them to determine the work for which they are best suited. Courses cover three to four years' study.

*Home Science Schools.* Home science schools offer two to five year courses in home science and commercial subjects. These courses prepare girls for the responsibilities of home-making and also for occupations in business, commerce, the public service and nursing.

*Agricultural Schools.* In each State, there are a few separate agricultural high schools, many of them residential. The curriculum consists of general educational subjects and practical farm training. There are also "area" and "rural" schools offering up to three years of secondary study, and in some States courses in agriculture are also given at high schools.

(iii) *Primary and Secondary Education in non-government Schools.* Non-government schools follow curricula similar to those laid down by Education Departments, and prepare their students for examinations conducted by public examining authorities. There are similarities between non-government and government schools in the courses they provide, but, in denominational schools, more emphasis is given to the religious training of pupils. Non-government schools at the secondary level, although usually organized along traditional academic lines, also cater for students who may wish to take commercial, junior technical or domestic science subjects. A few schools, mostly Roman Catholic secondary schools, specialize in agricultural and technical courses. Non-government schools offer some facilities additional to those normally found in government schools, such as personal tuition in music, ballet, etc. A few are organized on "experimental" lines.

3. *Examinations.*—During the course of secondary education, State-wide examinations are taken at two levels. The earlier examination, usually called the Intermediate or Junior Examination, qualifies pupils for entry to trade courses at technical colleges and agricultural colleges, to junior commercial positions in, for instance, insurance and banking, to nursing

and secretarial courses, to lower grades of the public service and to industry. The examination at the end of the secondary school course is usually called the Leaving Examination and qualifies students for entry to teacher's colleges, the higher grades of the public service, and commercial occupations. In the majority of States, the Leaving Examination is also the qualification for entry to the university, certain subjects and combinations of subjects being set down as the matriculation requirements by the respective universities.

The Leaving Examination is controlled by a Board consisting of representatives of the Department of Education, the universities, and non-government schools, and sometimes of other bodies such as teachers' organizations. In Victoria and Tasmania, the final secondary examination is controlled by the university and designed specifically for matriculation.

A brief description of the examinations in each State follows.

*New South Wales.* The Intermediate Certificate examination is taken internally after three years secondary study, at about the age of 15, and the Leaving Certificate examination after five years, at about 17. The structure of secondary education is being changed so that children entering secondary schools in 1962 and future years will follow a six-year course. The Intermediate Certificate examination will be taken as at present by those who wish to leave school at that stage. A School Certificate examination will be taken at the end of four years and a Higher School Certificate examination (Matriculation) after a further two years.

At present, a student presenting himself for the Leaving Certificate Examination qualifies for matriculation by obtaining passes in prescribed subjects. In addition, the University conducts its own matriculation examination, for which students may sit in place of the Leaving Certificate Examination.

*Victoria.* The Intermediate examination is taken at the end of the fourth secondary year, at about the age of 16, the School Leaving examination at the end of fifth year, at 17, and the Matriculation examination conducted by the University of Melbourne at the end of sixth year, at the age of 18. Pupils at approved non-government schools may be accredited for the Intermediate and Leaving Certificate by passing the examinations set by their own schools.

*Queensland.* The Junior Public Examination is taken at the end of second year, at about the age of 16. The Senior Public Examination conducted by the University of Queensland is taken at the end of fourth year, at the age of 18, and matriculation is obtained on results in this examination. At the beginning of the 1964 school year, a five-year secondary course will be introduced. Pupils will enter secondary school one year earlier than at present, and the Junior Public Examination will be taken at the end of the third year and the Senior Public examination at the end of the fifth year.

*South Australia.* The Intermediate Examination is taken at the end of the third year, at about the age of 15½. The Leaving Examination is taken at the end of the fourth year and Matriculation is gained on results in this examination. A further year may be taken, leading to the Leaving Honours Examination. The Leaving Honours year is designed primarily as additional preparation for university work, though it is not compulsory for intending students of the University of Adelaide.

*Western Australia.* The Junior Certificate examination is taken at the end of third year, at about the age of 15½. Students who pursue a less academic course may take the High School Certificate examination at this level. The Leaving Certificate examination is taken at the end of fifth year, at an average age of 17½, and matriculation is gained on results in this examination.

*Tasmania.* The Secondary School Certificate examination is taken at the end of third year, at about the age of 15½; the Schools Board Certificate examination at the end of fourth year, at 16½; and the Matriculation examination conducted by the University of Tasmania at the end of sixth year.

## § 2. Numbers of Schools, Teachers and Pupils.

1. *General.*—The statistics which follow relate generally to schools providing education according to the primary and secondary school curricula of the various State Education Departments, whether provided in government or non-government schools. Junior technical schools, correspondence schools and schools in institutional homes, hospitals and similar establishments are included. Institutions providing only pre-school education, senior technical colleges, evening schools, continuation classes and various unregistered schools such as coaching establishments are excluded.

"School Censuses" are conducted annually throughout all States and Territories of Australia. With the exception of non-government schools in Tasmania, where the census

is conducted in December, school censuses are conducted at or about the beginning of August. The numbers of pupils refer to the position at the school census date. The numbers of schools and teachers refer to the position at dates which vary from State to State and in some instances from year to year.

It has not been possible to present all figures on a uniform basis between States. However, continuity of the figures for any one State over the period of years shown has been maintained as far as possible.

Particulars relating to senior technical colleges are given in § 6, page 738.

2. Statistical Summary.—The numbers of schools, teachers and pupils for 1961 are shown in the following table.

### SCHOOLS: NUMBER, TEACHERS, PUPILS, 1961

Type of school	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
NUMBER OF SCHOOLS									
Government .. ..	2,721	2,179	1,501	663	526	289	17	21	7,917
Non-government—									
Denominational—									
Church of England ..	38	37	17	13	9	5	..	3	122
Hebrew .. ..	2	6	..	..	1	..	..	..	9
Lutheran .. ..	3	5	2	12	..	..	..	..	22
Methodist .. ..	7	4	(a) 5	4	3	1	..	..	24
Presbyterian .. ..	13	14	3	2	2	2	..	..	36
Roman Catholic ..	668	444	283	123	171	50	4	9	1,752
Seventh-day Adventist	19	7	3	4	5	3	..	..	41
Other .. ..	..	4	..	2	1	1	..	..	8
Undenominational ..	67	27	9	5	2	4	..	..	114
<b>Total .. ..</b>	<b>817</b>	<b>548</b>	<b>322</b>	<b>165</b>	<b>194</b>	<b>66</b>	<b>4</b>	<b>12</b>	<b>2,128</b>
<b>Grand Total ..</b>	<b>3,538</b>	<b>2,727</b>	<b>1,823</b>	<b>828</b>	<b>720</b>	<b>355</b>	<b>21</b>	<b>33</b>	<b>10,045</b>

### TEACHERS

Government .. ..	20,638	16,476	9,053	6,321	4,390	2,588	191	372	60,029
Non-government—									
Denominational—									
Church of England ..	843	794	298	244	174	112	..	61	2,526
Hebrew .. ..	15	101	..	..	2	..	..	..	118
Lutheran .. ..	16	10	35	75	..	..	..	..	136
Methodist .. ..	183	194	(a) 113	97	71	27	..	..	685
Presbyterian .. ..	343	386	58	81	61	49	..	..	978
Roman Catholic ..	5,422	2,956	1,910	813	773	314	19	105	12,312
Seventh-day Adventist	72	28	7	11	24	11	..	..	153
Other .. ..	..	109	..	28	2	46	..	..	185
Undenominational ..	536	282	153	93	3	11	..	..	1,078
<b>Total .. ..</b>	<b>7,430</b>	<b>4,860</b>	<b>2,574</b>	<b>1,442</b>	<b>1,110</b>	<b>570</b>	<b>19</b>	<b>166</b>	<b>18,171</b>
<b>Grand Total ..</b>	<b>28,068</b>	<b>21,336</b>	<b>11,627</b>	<b>7,763</b>	<b>5,500</b>	<b>3,158</b>	<b>210</b>	<b>538</b>	<b>78,200</b>

### PUPILS (CENSUS ENROLMENT)

Government .. ..	601,127	439,740	243,977	173,198	124,632	66,624	3,625	9,755	1,662,678
Non-government—									
Denominational—									
Church of England ..	11,843	14,284	4,642	4,267	3,210	1,842	..	909	40,997
Hebrew .. ..	263	1,779	..	..	49	..	..	..	2,091
Lutheran .. ..	212	258	540	1,389	..	..	..	..	2,399
Methodist .. ..	2,819	3,747	(a) 1,992	1,703	1,319	368	..	..	11,948
Presbyterian .. ..	5,356	7,420	792	1,386	1,158	609	..	..	16,721
Roman Catholic ..	169,248	131,543	61,551	25,290	28,057	9,408	850	3,764	429,711
Seventh-day Adventist	1,075	453	130	170	439	151	..	..	2,418
Other .. ..	..	2,113	..	514	79	848	..	..	3,554
Undenominational ..	6,308	4,268	3,176	1,263	57	209	..	..	15,281
<b>Total .. ..</b>	<b>197,124</b>	<b>165,865</b>	<b>72,823</b>	<b>35,982</b>	<b>34,368</b>	<b>13,435</b>	<b>850</b>	<b>4,673</b>	<b>525,120</b>
<b>Grand Total ..</b>	<b>798,251</b>	<b>605,605</b>	<b>316,800</b>	<b>209,180</b>	<b>159,000</b>	<b>80,059</b>	<b>4,475</b>	<b>14,428</b>	<b>2,187,798</b>

(a) Presbyterian and Methodist Schools' Association.

3. **Growth of Schools.**—The numbers of schools, teachers and pupils in Australia are shown in the following table for the years 1957 to 1961.

**SCHOOLS: NUMBER, TEACHERS, PUPILS, AUSTRALIA**

Particulars	1957	1958	1959	1960	1961
Number of schools—					
Government schools ..	7,712	7,774	7,844	7,886	7,917
Non-government schools ..	2,015	2,014	2,069	2,099	2,128
<i>Total</i> .. ..	<i>9,727</i>	<i>9,788</i>	<i>9,913</i>	<i>9,985</i>	<i>10,045</i>
Number of Teachers—					
Government schools ..	48,592	52,012	55,086	57,032	60,029
Non-government schools ..	15,460	16,076	16,716	17,515	18,171
<i>Total</i> .. ..	<i>64,052</i>	<i>68,088</i>	<i>71,802</i>	<i>74,547</i>	<i>78,200</i>
Number of Pupils(a)—					
Government schools ..	1,425,126	1,496,065	1,558,309	1,612,046	1,662,678
Non-government schools ..	450,599	471,320	489,721	508,647	525,120
<i>Total</i> .. ..	<i>1,875,725</i>	<i>1,967,385</i>	<i>2,048,030</i>	<i>2,120,693</i>	<i>2,187,798</i>

(a) Census enrolment.

Particulars of the average daily attendance at schools for a series of years back to 1891 may be found in earlier issues of this Year Book.

4. **Ages of Pupils.**—The ages of pupils at government and non-government schools at the school census date 1961 are shown in the following table.

**SCHOOLS: AGES OF PUPILS, AUSTRALIA, 1961**

(Census Enrolment)

Age last birthday (years)	Government schools			Non-government schools			Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Under 6 ..	69,357	64,591	133,948	44,115	44,746	88,861	197,361	188,491	385,852
6 ..	83,889	79,154	163,043		23,086	23,613	46,699	106,082	101,645
7 ..	82,996	78,032	161,028		22,936	24,211	47,147	106,948	103,116
8 ..	84,012	78,905	162,917		23,295	23,295	46,079	105,589	100,330
9 ..	82,805	77,035	159,840		22,784	23,295	46,079	105,589	100,330
10 ..	81,845	76,649	158,494		23,033	23,917	46,950	104,878	100,566
11 ..	81,338	75,727	157,065		22,979	23,807	46,786	104,317	99,534
12 ..	78,205	71,214	149,419		22,498	24,694	47,192	100,703	95,908
13 ..	78,494	70,394	148,888		22,512	25,148	47,660	101,006	95,542
14 ..	77,092	66,691	143,783		22,268	24,313	46,581	99,360	91,004
15 ..	42,958	32,280	75,238		15,394	15,437	30,831	58,352	47,717
16 ..	20,204	13,256	33,460		10,148	8,884	19,032	30,352	22,140
17 and over..	10,587	4,968	15,555		7,384	3,918	11,302	17,971	8,886
<i>Total</i> ..	<i>873,782</i>	<i>788,896</i>	<i>1,662,678</i>	<i>259,137</i>	<i>265,983</i>	<i>525,120</i>	<i>1,132,919</i>	<i>1,054,879</i>	<i>2,187,798</i>

The ages of all pupils in each State at the same date are shown in the following table.

## SCHOOLS: AGES OF PUPILS, 1961

(Census Enrolment)

Age last birthday (years)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Under 5	4,125	2,315	254	15,449	7,104	14,223	418	105	385,852
5	67,897	51,973	17,990	20,106	16,489	7,457	522	1,390	207,727
6	74,370	58,265	31,458	19,761	15,857	7,544	490	1,384	210,064
7	74,824	57,074	30,892	20,163	16,327	7,582	489	1,351	205,919
8	75,360	57,988	30,808	19,838	15,933	7,329	468	1,314	205,444
9	73,831	56,013	30,882	19,823	16,041	7,271	408	1,241	203,851
10	74,019	56,207	30,243	19,110	15,217	6,534	354	1,195	196,611
11	74,105	55,457	30,129	18,880	14,907	6,873	318	1,139	196,548
12	71,572	53,274	29,355	17,890	13,666	7,491	266	1,245	190,364
13	72,226	53,336	28,869	10,600	6,751	4,753	149	719	106,069
14	75,230	49,456	25,120	5,509	3,236	2,080	62	394	52,492
15	36,539	30,490	16,068	1,735	1,614	733	19	158	19,891
16	16,953	15,823	8,435	487	447	189	3	41	6,966
17	5,835	6,190	3,607						
18 and over	1,365	1,744	2,690						
Total	798,251	605,605	316,800	209,180	159,000	80,059	4,475	14,428	2,187,798

## § 3. Teacher Training and Recruitment

1. Teachers for Government Schools.—(i) *Recruitment.* The teacher shortage evident in past years has now to a certain extent been overcome. Some States have no difficulty in recruiting and training sufficient staff to meet the present needs of primary schools. Despite expanded training programmes, the shortage of secondary school teachers has proved a greater problem, especially in mathematics and science.

State Education Departments recruit most prospective teachers for government service from students leaving schools after a secondary course. Each department offers training awards annually on the basis of academic merit and personal suitability. The traineeships cover the cost of a teacher training course (which may include university studies) and provide a living allowance. Students are usually required to enter into a bond to serve for a specified number of years in the government schools of the State where they have trained. In some States, intending teachers can obtain a scholarship at Intermediate Certificate level to enable them to complete teachers' college entrance requirements. Such an award entails a bond of service for a longer period.

(ii) *Training of Primary School Teachers.* In most States, teachers for government primary schools are trained in teachers' training colleges controlled and administered by the State Education Departments. These colleges are described in § 10, para. 2. Generally, the duration of courses for primary teachers is two years. The basic subjects taken in the various courses are history and principles of education, general and special methods of teaching in the primary school, school organization, and educational psychology. In addition, students undertake courses in English (including speech training), mathematics, handicrafts, music, art, social studies, natural science, physical and health education. Optional subjects may include dramatic art, visual aids and so on. Supervised practice teaching in schools, and the observation of demonstration lessons form part of all training courses. Since primary teachers in Australia may be called upon at some time to teach grouped classes in a small school or a "one-teacher" school, special training for this kind of work is included in their course.

(iii) *Training of Secondary School Teachers.* Secondary teachers are normally specialists in a combination of subjects, such as English and history, modern languages, or mathematics and science. Intending secondary school teachers are required to complete a university degree, followed by a year of professional training qualifying for a Diploma in Education.

The degree courses followed are usually in arts, science or economics, with the major studies providing the essential background for future subject teaching. During the post-graduate or professional year, the student takes such subjects as the history and principles of education, comparative education, educational psychology, and special teaching methods. Training also includes practice teaching under the supervision of teachers' college and university staff, and the observation of demonstration lessons.

At several Australian universities, students wishing to take up teaching as a profession can receive their professional training along with the study of their teaching subjects as part of a first degree course in Education. The time taken to complete such a Bachelor of Education degree is four years.

(iv) *Training for Specialist Teaching.* Teachers of specialist subjects such as music, art, manual arts, domestic science and commercial subjects receive from two to five years training which varies according to the institution concerned and the type of secondary school in which the teacher is to serve. In several States, the shorter courses are provided wholly by the teachers' colleges. Where the specialist course is given at an institution other than the teachers' college—for example, at a university, technical college or conservatorium of music—as is usual for teachers of specialist subjects in high schools, trainees are required to attend teachers' college or university lectures in education, and in some cases the specialist course is followed by a year of professional training. In four States, teachers of music receive their specialist training at conservatoria of music.

Courses designed to train physical education teachers are offered in universities in all States, and in three States at a teachers' college as well.

Training for teachers of agricultural subjects in secondary schools is available in five States and consists of either an agricultural college diploma or a university degree course together with professional training. In Victoria, the two-year agricultural college diploma course follows on the normal two-year primary teachers' course.

Teachers of technical subjects in secondary schools may be trained in manual or industrial arts courses of two to four years' duration, at teachers' colleges, technical colleges, or, in one State, at a university. These courses include basic training in such subjects as wood and metal work, and geometrical drawing. In Victoria, there is a separate Technical Teachers' College. Some teachers of trade subjects in technical schools are recruited from the ranks of qualified tradesmen engaged in either industry or commerce. These teachers usually receive instruction in classroom teaching techniques and procedures upon appointment.

(v) *In-service Training.* As almost all teachers now enter the profession by way of teachers' colleges or universities, where they receive basic professional training, in-service training in Australia is directed chiefly towards keeping teachers abreast of developments and adding to their basic training.

In-service training usually takes the form of short courses held sometimes during vacations, sometimes during school-time or in the evenings. Courses consist of discussions and lectures given by senior staff members of Education Departments and university and teachers' college lecturers on such subjects as classroom techniques and supervision, librarianship, visual aids, music, arts and crafts, and physical education. In some States, there are also in-service courses for special groups of teachers such as headmasters or teachers in one-teacher schools. In addition, district inspectors are responsible for organizing short conferences of teachers, where professional topics are discussed. Education Departments encourage teachers to pursue university courses, and in some States pay the cost of courses undertaken by selected teachers.

The official publications of the Education Departments contain articles dealing with educational theory and practice. Magazines of the teachers' organizations, which reach the majority of government teachers, also contain articles of this type.

(vi) *Status.* Most teachers in government schools are permanent public servants and have security of tenure, superannuation rights, and the right of appeal in matters of promotion. The centralized education systems and the general policy of providing fully trained teachers for both city and country areas mean that teachers are subject to transfer to any part of the State in which they serve. It is common for a teacher's first appointment to be to a country school.

In each State, there is a federation or union of State school teachers, and these together form a federal body, the Australian Teachers' Federation. Their aim is to advance the teacher's status and conditions and to stimulate community interest in educational problems.

2. **Training of Non-government School Teachers.**—Teachers for non-government schools receive their training in a number of ways. The Roman Catholic Church staffs both its primary and secondary schools mainly with members of religious orders whose training has been obtained in conformity with the requirements of the particular order concerned. In recent years, there has been a growth in the number of lay teachers being employed in Catholic schools, and some training of students to become lay primary teachers has now been instituted. Secondary teachers receive their academic training mostly through courses provided by Australian universities.

Other non-government schools tend to recruit their staffs from teachers who have already obtained qualifications in Australia or overseas. There are two training institutions—one each in New South Wales and Victoria—which offer courses designed principally for teaching in non-government schools. Non-government schools recruit also university graduates who are then given some guidance by senior members of the school staff.

Private students may enrol at government teachers' colleges on payment of a fee, but the number of places available is limited. Some teachers destined for non-government schools are trained in this way.

In-service training to provide the basic training for teachers is used only to a limited extent by non-government schools, mainly in the case of the graduate recruits mentioned above. Recently vacation courses have been provided by bodies other than Education Departments for teachers from both government and non-government schools. For example, an independent body—the Nuclear Research Foundation—has provided such courses for teachers of science in secondary schools in New South Wales.

The training of pre-school teachers is carried out in five States in Kindergarten Training Colleges, set up by the Kindergarten Unions. These are described in § 10, para. 3.

#### § 4. Other Aspects of School Education

NOTE.—Information relating to school medical and dental services is given in Chapter XVII. Public Health, and particulars of School Savings Banks in Chapter XX. Private Finance.

1. **Provisions for Isolated Areas.**—(i) *General.* Although the task of bringing education to isolated areas in Australia presents problems, all education authorities have nevertheless aimed at providing opportunities for country children comparable to those available to city children. Country children follow the same curriculum (with local adaptation, if desirable) and are under the guidance of teachers who are trained for service in country and city schools alike.

In areas where there are sufficient children of school age, a "one-teacher" school may be formed with all primary grades in a single classroom under the control of the one teacher. Special training is given to teachers undertaking work of this kind. Children who complete a primary course in a one-teacher school and cannot attend a secondary school may do secondary correspondence lessons under the teacher's supervision.

In districts where a number of small centres are scattered around a larger centre or country town, the tendency is to close the one-teacher schools and transport pupils each day by buses to a "consolidated" school in the larger centre. Consolidated schools provide primary instruction and from two to four years of post-primary instruction. The post-primary curriculum adopted is usually directed towards practical activities and training in subjects bearing on the primary industries of the locality.

Where a group of children is too small to warrant the establishment of a one-teacher school at public expense, a "subsidized" school may be opened. The Education Department pays part of the cost and in some States appoints a teacher. Some States also administer "provisional" schools, which are completely financed by the Government but which are not large enough, or sufficiently assured of adequate continued attendance of pupils, to warrant classification as permanent schools.



(ii) *Correspondence Schools.* These have been established in each State capital city to meet the needs of children whose daily attendance at school is prevented by distance between home and school, by illness or by physical disability. The correspondence schools also cater for inmates of penal institutions, Australian children overseas, pupils of other schools in which particular courses are not available, student teachers, members of the Defence Forces and other adults completing their secondary education. Lessons are done with the help of a supervisor, usually a member of the child's family, and posted back to the correspondence school in the capital city, where they are corrected and returned with helpful comments. Every endeavour is made to maintain a personal link between teacher and pupil. Correspondence schools began with primary grades only, but were soon extended to cater for secondary pupils, and it is now possible to do a complete secondary course to matriculation standard by correspondence. Some 18,000 primary and secondary pupils are receiving instruction through correspondence schools.

(iii) *Schools of the Air.* These are an attempt to give the outback child of school age some of the benefits of school life and at the same time to supplement correspondence education. Using the two-way wireless equipment developed first by the Royal Flying Doctor Service, children hundreds of miles apart participate in the same lesson, and teacher and pupils can talk directly with each other. The first School of the Air was established in 1950 at Alice Springs in the Northern Territory; it has been followed by similar schools at Broken Hill in the far west of New South Wales; at Ceduna and Port Augusta in South Australia; Cloncurry and Charters Towers in Queensland; and Meekatharra, Derby and Kalgoorlie in Western Australia. These nine schools serve children in an area of a million square miles.

**2. Handicapped Children.**—Special provision is made for the education of physically and mentally handicapped children, both by the State authorities and by church and voluntary organizations, often working in conjunction. In many cases where residential schools are necessary for particular groups, educational facilities and teaching staff are provided by a State Education Department, while a voluntary organization provides accommodation and accepts responsibility for the general welfare of the children. Among the facilities available are:—hospital schools for sick and crippled children; "spastic centres" for cerebral palsied children; special schools and special classes for deaf children; schools for blind children; and special classes and schools for mentally retarded children. Special schools and classes have involved the appointment of departmental specialists, the provision of special training courses, and close liaison with school health services. In some States, clinics attached to hospitals, or functioning as an independent child welfare service, handle cases of personality maladjustment and work in co-operation with the psychological services of the Education Departments.

**3. Educational Guidance.**—Each Australian State now has a comprehensive system of educational guidance administered by trained and experienced educational psychologists and backed by a system of individual pupil record cards. The functions of these services are the selection of pupils for courses at secondary level, diagnosis and guidance of atypical children, preliminary guidance and, in some States, research. The weight given to each of these functions varies from State to State, but the aim is to provide thorough educational guidance for all children.

Throughout Australia, branches of the Commonwealth Employment Service co-operate with State Education Departments by giving post-school vocational guidance, using the data obtained and made available by the Education Departments during the school career of the children. In New South Wales, a similar service is also provided by the Youth Welfare Section of the State Department of Labour and Industry.

**4. Research.**—All State Education Departments have set up branches undertaking research directed towards departmental activities. The work of the research branches is concerned with such matters as curriculum content, new teaching methods, evaluation procedures, wastage rates and educational statistics.

**5. School Broadcasting and Television.**—Over the years, an extensive school broadcasting system has been developed in Australia by the co-operative efforts of the Australian Broadcasting Commission and education authorities. The Australian Broadcasting Commission's Education Department is responsible for preparing and broadcasting programmes, but it draws freely on the advice and services of teachers and maintains permanent liaison with State Education Departments. It is estimated that, in 1962, over 90 per cent. of Australian schools were equipped to receive radio lessons.

School broadcasts are presented as part of the regular Australian Broadcasting Commission programmes without separate stations or wave lengths. Special efforts are made, however, to relate the broadcast to school work by the extensive distribution of booklets, giving details of programmes in advance, and subject notes accompanied by picture sheets, work books, and teachers' notes.

Broadcasting has proved to be a most effective way of reaching the outback children of Australia, and radio lessons have been designed to supplement correspondence lessons.

Even though the use of television in education is still in its early stages in Australia, more than 300 schools made use of the telecasts provided for schools by the Australian Broadcasting Commission during 1962. In 1962, over 400 programmes were broadcast to schools, mostly at primary level.

**6. Scholarships and Bursaries.**—All States have schemes of financial assistance to school pupils, mostly at the secondary level, through scholarships or bursaries. As tuition in government schools is free, this assistance is usually in the form of maintenance allowances, both for children living with their parents and for those living away from home. These may be paid in a lump sum or in instalments throughout the year. Awards are usually made on the results of a competitive examination, and sometimes a means test is applied. Other government and private authorities, such as the Repatriation Department and the Legacy War Orphans Fund, assist special categories of pupils with their school education. Many non-government schools also award scholarships on a competitive basis which enable students to attend the particular schools without payment of fees.

**7. School Transport.**—All States have systems of subsidies whereby transport is made available free or at a concession rate for children travelling to and from school. In some States, allowances are paid if private transport has to be used.

**8. School Buildings.**—The great increase in the school population in the last decade led to an expansion in school building, first for infants' and primary classes and later for secondary pupils. To cope with this growth in population, it was necessary at first to make use of temporary and emergency structures, but the period of resorting to this expedient is now giving way to one of consolidation and development in school building programmes. Quite large schools may be built in stages to match increase in local population in new and rapidly developing suburbs in metropolitan areas. Authorities are giving much attention to the use of new materials and especially to the planning of sites. An increasing number of schools are planned with playing fields and tennis courts. Gymnasiums which may also serve as assembly halls are included, and lighting, heating and ventilation to meet different climatic conditions are carefully planned.

**9. Textbooks, Materials and other Equipment.**—The State Education Departments supply government schools, free of charge, with essential equipment, including scientific apparatus, maps, blackboards, chalk and cleaning materials, and non-consumable equipment for commercial, home science and manual training. Garden tools and physical training equipment are also supplied in most States.

Primers and writing equipment for individual pupils are usually supplied free in primary schools, and Education Departments produce monthly school magazines which are supplied free or cheaply. In primary schools (except in one State) and in all secondary schools, textbooks must, however, be purchased by students. In several States, schools own stocks of textbooks which are hired to students, and in one State, secondary textbooks are sold at reduced prices.

Equipment such as radios, film and filmstrip projectors, pianos, duplicators and library books is ordinarily purchased for individual schools by the parent and citizen organizations associated with them, with the assistance of subsidies from the Departments.

The design of school furniture is undergoing considerable change following research on posture and the physical measurement of children. Dual desks are now being replaced in many schools by individual tables and chairs, provided in a range of sizes suitable to each class. The new type of furniture is more suitable for flexible arrangement of the class in line with modern educational practice.

10. **Visual Aids.**—Visual aids are widely used in Australian education. Each of the State Education Departments has a visual education branch to handle the production and distribution of such materials. Film strips and posters are distributed free or at low cost. Films are held in central libraries and are requisitioned by schools as required for teaching purposes.

### § 5. Pre-school Education

Pre-school centres of various kinds are conducted by private individuals, church bodies and voluntary organizations such as the Kindergarten Unions. Over recent years, the Commonwealth Government, State Governments, and some municipal councils have provided an increasing amount of financial assistance and themselves maintain centres in certain areas.

The Australian Pre-School Association is a federal body composed of the Kindergarten Unions and several other organizations. Its aim is to promote the development of pre-school education throughout Australia. It is also responsible for the administration of six Lady Gowrie Child Centres which were established in capital cities by the Commonwealth Government as model pre-school centres.

Centres are located in city and country areas. Programmes are adapted to suit the areas in which centres are situated. Types of pre-school centres include nursery kindergartens, crèches with full-day care for children in closely settled industrial areas, play groups and play centres, occasional care centres and residential holiday homes.

Pre-school centres can cater only for a small proportion of children in the three to five or six year age group, but radio and television have brought a form of education within the reach of practically every pre-school child in Australia. "Kindergarten of the Air", the first programme of its kind in the world, is a session of 25 minutes broadcast every week-day over the national radio network of the Australian Broadcasting Commission. Through it young children in hospitals, in homes in city and country towns and in bush homesteads in the outback, perhaps many miles from any school, receive some of the advantages of pre-school training.

"Kindergarten Playtime" is a 15-minute television programme transmitted each week-day. It is based on the interests of children from three to five years and is now broadcast in all State capital cities by the Australian Broadcasting Commission.

### § 6. Technical Education

1. **General.**—The following description of technical education refers to training in technical fields given by institutions other than secondary schools and universities. Students may proceed to this kind of training after completing three to five years at secondary school.

Each State has developed a system of technical education based on institutions set up in all the State capital cities and in many country areas. These institutions are known variously as technical colleges, technical schools, institutes of technology and schools of mines. The earliest began as local and even private ventures in the second half of the nineteenth century, but almost all of them have now come under the control of the State governments.

The technical colleges in Queensland, South Australia, Western Australia and Tasmania are administered by branches of the State Education Departments and are financed from the budget of the State Minister for Education. New South Wales has a separate State Department of Technical Education. Only in Victoria is there still a dual system with a number of the older colleges controlled by their own "councils" in addition to government-controlled colleges administered by the Technical Education Branch of the Education Department. The council-controlled colleges receive government grants-in-aid and their teachers' salaries are paid by the State government.

Australian technical colleges offer training in all the major industrial skills and in a wide variety of commercial, artistic and domestic occupations. The three main types of courses are described below.

2. **Trade Courses.**—These offer part-time training for apprentices. In developing a system of technical education, the Australian authorities were influenced by the British tradition which regards practical experience on the job as the fundamental training procedure, to be supplemented by theoretical and practical training at an appropriate school. In each of the Australian States there is an apprenticeship authority which supervises the administration of apprenticeships and an education authority which provides technical education through its technical colleges.

The time spent on training varies from three to five years in different trades and States. Between four and eight hours' instruction a week are required. Most of this takes place in the employer's time, and it is unusual for more than two hours a week of the employee's time to be spent in attending classes.

3. **Certificate Courses.**—There is considerable variation between the States in the aims and organization of certificate courses. In New South Wales, they provide training of a semi-professional nature in occupations for which no apprenticeship awards exist. Some of the courses are open to qualified tradesmen only. For others, no occupational entry qualifications are demanded, but it is necessary to hold an Intermediate Certificate or its equivalent. The courses are usually for four years, most of them being part-time.

The Victorian concept of a certificate course is somewhat different. It is designed to develop specialized skills in a particular phase of an occupation. In the building field, for instance, there is a certificate course in architectural drafting. The courses are offered at three levels—professional certificate courses which include diploma subject matter and can be counted towards a diploma; special short courses which are designed to increase the efficiency of people in their chosen field; and technicians' courses which give a standard of training between trade and professional courses. In general, they consist of part-time day and/or evening instruction concurrent with employment in the field, and entrance requirements are of approximately Intermediate Certificate standard.

Courses in other States are mostly part-time, and of two to seven years' duration. They provide a wide range of training for skilled technical and semi-professional workers, and, in most cases, entrance is at the level of the Intermediate Certificate or equivalent.

4. **Diploma Courses.**—Diploma courses are designed to provide professional training in fields such as architecture, art, building, commerce, management, public administration, manual arts, the various branches of engineering and metallurgy, and pure and applied science. They usually follow completion of a full secondary school course.

The courses consist of complete progressive units of study in which the lecture room, laboratory and workshop are closely associated. They vary from three to five years' full-time and from three to seven years' part-time study. At least one full year's employment in an appropriate occupation is usually required.

The aim of the courses is to develop highly trained technologists with the qualifications and experience required for membership of a professional institution.

5. **Other Courses.**—Most colleges provide short post-diploma and refresher courses to keep students in touch with new developments in their fields, as well as courses of general interest such as women's handicrafts and motor mechanics. Training in certain technical aspects of agriculture such as farm mechanics and wool classing is often given in the technical colleges. Some also offer general secondary courses to enable adults to prepare for matriculation and other public examinations.

6. **Correspondence Teaching.**—Each State has a well developed system of technical education by correspondence to extend the facilities of a metropolitan college to rural students. Entrance qualifications are identical with those for the regular classes. A major problem of correspondence work is the linking of theory with practice. This is overcome to a certain extent by holding practical sessions at appropriate training centres once or twice a year at the technical college where the correspondence school is based or at a mobile workshop stationed for the time at a focal point within the district. In New South Wales, these mobile workshops are rail cars equipped with machinery and fittings to make them self-contained training schools for engineering and other trades. Among practical courses offered by correspondence are trade drawing, fitting and machinery, welding, diesel engine operation, automotive engineering and workshop practice, and farm mechanics.

7. Colleges, Teachers and Students.—The number of colleges, teachers and enrolments of individual students during the years 1957 to 1961 is given in the following table.

### TECHNICAL EDUCATION: COLLEGES, TEACHERS, AND ENROLMENTS

State	Colleges	Teachers			Students enrolled		
		Full-time	Part-time	Total	Males	Females	Persons
<b>New South Wales(a)(b)—</b>							
1957 .. .. .	45	1,240	1,291	2,531	51,244	27,386	78,630
1958 .. .. .	48	1,259	1,337	2,596	54,104	28,361	82,465
1959 .. .. .	48	1,299	1,691	2,990	(c) 47,064	(c) 41,736	88,800
1960 .. .. .	51	1,286	1,682	2,968	62,523	34,195	96,718
1961 .. .. .	51	1,302	2,051	3,353	66,715	35,495	102,210
<b>Victoria—</b>							
1957 .. .. .	50	2,209	1,558	3,767	42,224	16,082	58,306
1958 .. .. .	54	2,382	1,488	3,870	45,653	17,215	62,868
1959 .. .. .	63	2,644	1,678	4,322	48,089	16,845	64,934
1960 .. .. .	70	2,796	1,766	4,562	51,328	16,388	67,716
1961 .. .. .	76	3,133	1,929	5,062	(d) 47,053	(d) 13,424	(d) 60,477
<b>Queensland(a)—</b>							
1957(e) .. .. .	13	167	410	577	12,728	4,469	17,197
1958(e) .. .. .	13	166	568	734	13,422	4,792	18,214
1959(e) .. .. .	13	176	517	693	13,500	4,970	18,470
1960(e) .. .. .	14	174	647	821	13,556	4,893	18,449
1961 .. .. .	14	174	663	837	18,290	9,156	27,446
<b>South Australia(a)(f)—</b>							
1957 .. .. .	30	274	663	937	15,123	8,300	23,423
1958 .. .. .	25	280	770	1,050	16,991	8,570	25,561
1959 .. .. .	25	294	779	1,073	18,130	8,570	26,700
1960 .. .. .	25	323	737	1,060	15,728	7,722	23,450
1961 .. .. .	25	363	712	1,075	15,596	8,457	24,053
<b>Western Australia(a)—</b>							
1957 .. .. .	24	257	430	687	13,519	7,512	21,031
1958 .. .. .	23 (g)	278 (g)	735 (g)	1,013 (g)	15,977	8,436	24,413
1959 .. .. .	24 (g)	282 (g)	739 (g)	1,021 (g)	15,604	8,888	24,492
1960 .. .. .	19 (g)	307 (g)	802 (g)	1,109 (g)	17,017	8,739	25,756
1961 .. .. .	20 (g)	317 (g)	862 (g)	1,179 (g)	17,992	9,083	27,075
<b>Tasmania—</b>							
1957 .. .. .	7	85	383	468	4,423	2,215	6,638
1958 .. .. .	8	98	404	502	(c) 4,625	(c) 2,354	6,979
1959 .. .. .	8	104	398	502	4,837	2,463	7,300
1960 .. .. .	8	111	413	524	5,253	2,085	7,338
1961(h) .. .. .	12	97	383	480	4,871	1,427	6,298
<b>Total—</b>							
1957 .. .. .	169	4,232	4,735	8,967	139,261	65,964	205,225
1958 .. .. .	171	4,463	5,302	9,765	150,772	(i) 69,728	220,500
1959 .. .. .	181	4,799	5,802	10,601	147,224	(i) 83,472	230,696
1960 .. .. .	187	4,997	6,047	11,044	165,405	74,022	239,427
1961 .. .. .	198	5,386	6,600	11,986	170,517	77,042	247,559

(a) Excludes correspondence students. (b) Includes A.C.T. (c) Estimated.  
 (d) Number enrolled at Census. (e) Student figures are enrolments at end of year. (f) Student figures are individual enrolments. (g) Number of teaching positions. (h) In 1961 there was a transfer of classes in the hobby category to the Adult Education Board. (i) Partly estimated.

8. Training of Technical Instructors.—Prior to the 1939–45 War, technical colleges were staffed chiefly by trained teachers in the employment of the Education Department or technicians drawn from industry. Although some of the latter were highly qualified, the great majority had not been trained as teachers.

To preserve links with industry and trade practice, schemes have been developed which continue the recruitment of specialist tradesmen as instructors but provide also for their training in educational method and teaching techniques. In Victoria, the Technical Teachers' College provides training for students with appropriate diploma or trade qualifications and suitable industrial experience. In New South Wales, technical college lecturers and tradesmen-instructors receive an in-service course of teacher training in both general educational theory and teaching method, while correspondence courses and visiting lecturers assist the newly appointed tradesman-instructor in country colleges. Variations of this scheme are in operation in other States. Many technical teachers, principally of academic, commercial and domestic science subjects, hold trained teacher's certificates from teachers' colleges.

## § 7. Government Expenditure on Schools and Technical Education

1. *General.*—The following tables show particulars of the total net expenditure (i.e., gross expenditure less receipts for services rendered) from certain funds on government schools, education departments and technical education. The data have been compiled on the same basis as far as differences in organization and accounting methods between States and Territories will permit.

The tables include only expenditure from the consolidated revenue funds and certain trust or special funds. They exclude loan fund expenditure; expenditure on debt charges, payroll tax and superannuation payments, in so far as it is possible to identify these items; and some items for which information cannot be obtained from the public accounts of all States.

2. *Government Schools and Education Departments Expenditure.*—(i) *Total Net Expenditure.* The figures relate throughout to years ended 30th June. Net expenditure per pupil relates the total net expenditure to the mean of the numbers of pupils enrolled at two subsequent school censuses. Net expenditure per head of population relates the total net expenditure to the mean population.

### GOVERNMENT SCHOOLS AND EDUCATION DEPARTMENTS

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
TOTAL NET EXPENDITURE (£'000)									
1956-57	.. 30,345	19,978	9,120	6,197	6,571	3,304	155	392	76,062
1957-58	.. 33,132	22,222	9,953	6,853	7,274	3,380	197	408	83,419
1958-59	.. 36,544	24,563	11,347	7,963	7,541	3,662	217	504	92,341
1959-60	.. 40,445	27,323	12,130	9,232	8,246	4,327	278	587	102,568
1960-61	.. 46,580	30,762	13,931	10,354	9,271	4,773	353	792	116,816

### TOTAL NET EXPENDITURE PER PUPIL (£ s. d.)

1956-57	.. 57 18 10	57 2 10	43 14 1 44 10 0	63 13 11	56 17 8	69 0 10	71 19 4	54 14 3
1957-58	.. 60 18 10	59 13 11	45 7 10	46 11 4	67 2 8	56 0 3	75 18 4	66 12 3
1958-59	.. 64 18 4	62 7 0	49 12 5	51 6 3	66 8 11	58 13 3	74 1 3	73 7 2
1959-60	.. 69 15 0	66 2 7	51 7 6	56 12 9	69 19 11	67 7 0	86 14 3	73 9 4
1960-61	.. 78 8 1	71 7 3	57 13 7	60 18 5	75 17 3	72 10 0	101 0 7	86 6 5

### TOTAL NET EXPENDITURE PER HEAD OF POPULATION (£ s. d.)

1956-57	.. 8 9 1	7 12 2	6 10 10	7 3 11	9 13 0	10 3 4	7 15 0	10 11 11	7 19 7
1957-58	.. 9 10 0	8 5 5	7 0 0	7 14 8	10 9 8	10 3 8	9 7 7	10 9 3	8 11 3
1958-59	.. 9 16 0	8 18 8	7 16 5	8 15 4	10 13 8	12 15 3	9 17 3	11 14 5	9 5 8
1959-60	.. 10 13 1	9 13 9	8 4 2	9 17 8	11 10 1	12 11 7	11 2 5	11 14 10	10 1 10
1960-61	.. 12 0 5	10 12 7	9 5 4	10 16 4	12 14 1	13 12 8	13 15 0	14 6 9	11 4 10

(ii) *Classification of Expenditure.* The following table shows, for the six States, the net expenditure on government schools and education departments classified into the following headings:—(i) Primary Education, (ii) Secondary Education, (iii) Administration, (iv) Training of Teachers, and (v) Transportation of School Children and Students. Expenditure on technical and agricultural education is excluded from the tables.

It has been necessary to estimate some items of expenditure, largely because the meanings of "primary" and "secondary" differ between States, and because elementary and higher education are sometimes given in the same school by the same teachers.

Expenditure on government schools in the Northern Territory and Australian Capital Territory is not included in the following table. This expenditure has been excluded, because the detail is not available.

**GOVERNMENT SCHOOLS AND EDUCATION DEPARTMENTS:  
CLASSIFICATION OF EXPENDITURE  
(£'000)**

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total(a)
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**PRIMARY EDUCATION**

1956-57	..	..	18,043	11,553	6,603	4,065	3,557	1,517	45,338
1957-58	..	..	19,037	12,659	7,065	4,409	4,044	1,625	48,839
1958-59	..	..	20,562	13,953	7,980	4,905	4,095	1,751	53,246
1959-60	..	..	22,272	14,892	8,325	5,527	4,464	1,858	57,338
1960-61	..	..	25,076	16,366	9,352	6,009	4,930	1,926	63,659

**SECONDARY EDUCATION**

1956-57	..	..	7,973	4,177	1,350	1,179	1,224	823	16,726
1957-58	..	..	9,241	4,870	1,532	1,362	1,480	814	19,299
1958-59	..	..	10,661	5,406	1,830	1,800	1,631	997	22,325
1959-60	..	..	12,139	6,372	2,148	2,237	1,894	1,261	26,051
1960-61	..	..	14,826	7,538	2,791	2,714	2,218	1,509	31,596

**ADMINISTRATION**

1956-57	..	..	1,212	554	396	174	292	366	2,994
1957-58	..	..	1,323	584	419	198	281	328	3,133
1958-59	..	..	1,479	651	465	199	314	230	3,338
1959-60	..	..	1,703	760	518	246	274	419	3,920
1960-61	..	..	1,853	810	607	249	363	531	4,413

**TRANSPORTATION OF SCHOOL CHILDREN AND STUDENTS**

1956-57	..	..	1,455	1,749	359	388	1,021	420	5,392
1957-58	..	..	1,616	1,913	423	404	930	443	5,729
1958-59	..	..	1,613	2,002	502	467	910	458	5,952
1959-60	..	..	1,813	2,120	601	486	957	516	6,493
1960-61	..	..	2,058	2,393	685	523	998	569	7,226

**TRAINING OF TEACHERS**

1956-57	..	..	1,662	1,945	412	391	477	178	5,065
1957-58	..	..	1,915	2,196	514	480	539	170	5,814
1958-59	..	..	2,229	2,551	570	592	591	226	6,759
1959-60	..	..	2,518	3,179	538	736	657	273	7,901
1960-61	..	..	2,767	3,655	496	859	762	238	8,777

(a) Excludes Northern Territory and Australian Capital Territory.

3. **Technical Education Expenditure.**—The following table shows the net expenditure on technical education from the State consolidated revenue funds, together with expenditure in the Australian Capital Territory.

**TECHNICAL EDUCATION: NET EXPENDITURE  
(£'000)**

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
1956-57	..	..	..	..	..	..	..	..
1957-58	..	..	..	..	..	..	..	..
1958-59	..	..	..	..	..	..	..	..
1959-60	..	..	..	..	..	..	..	..
1960-61	..	..	..	..	..	..	..	..

## § 8. Non-government Schools Finance

Most Roman Catholic parochial schools charge fees, but payment is not insisted on in the case of families who cannot afford it. At the majority of non-government secondary schools, privately endowed scholarships are available in varying numbers, and reductions in fees are normally made for children of clergy or for two or more members of one family attending the same school. With these exceptions, pupils of non-government schools must pay fees.

Certain State scholarships and bursaries are tenable at approved non-government secondary schools. Since the establishment of educational systems by the State governments, official policy has been largely against the provision of direct financial assistance to non-government schools. The eight undenominational grammar schools in Queensland, however, receive a State subsidy under the *Grammar Schools Acts 1860-1900*. In 1956, the Commonwealth Government undertook to contribute to the interest payments on loans raised in order to build non-government secondary school accommodation in the Australian Capital Territory. This contribution is now available for both primary and secondary school buildings extensions and additions.

## § 9. Universities

1. General.—Students qualify for entrance to Australian universities by passing a matriculation examination in one of the States after 5 or 6 years of secondary education. Each university has its own regulations for matriculation, specifying the number and combination of subjects to be passed for admission. Students entering the universities have the choice of undergraduate study in various faculties.

The Australian universities with their faculties are listed below in the order of their foundation.

*University of Sydney*, 1850, Sydney, New South Wales: Agriculture, Architecture, Arts, Dentistry, Economics, Engineering, Law, Medicine, Science, Veterinary Science.

*University of Melbourne*, 1853, Melbourne, Victoria: Agriculture, Architecture, Arts, Dental Science, Economics and Commerce, Education, Engineering, Law, Medicine, Music, Science, Veterinary Science, Applied Science.

*University of Adelaide*, 1874, Adelaide, South Australia: Agricultural Science, Architecture and Town Planning, Arts, Dentistry, Economics, Engineering, Law, Medicine, Music, Science, Technology.

*University of Tasmania*, 1890, Hobart, Tasmania: Agricultural Science, Arts, Commerce, Education, Engineering, Law, Science.

*University of Queensland*, 1909, Brisbane, Queensland: Agriculture, Architecture, Arts, Commerce and Economics, Dentistry, Education, Engineering, Law, Medicine, Science, Veterinary Science.

*University of Western Australia*, 1912, Perth, Western Australia: Agriculture, Arts, Dental Science, Economics and Commerce, Education, Engineering, Law, Medicine, Science.

*Australian National University*, 1946, Canberra, Australian Capital Territory.—Institute of Advanced Studies: John Curtin School of Medical Research, Research School of Physical Sciences, Research School of Social Sciences, Research School of Pacific Studies. School of General Studies: Arts, Economics, Law, Science, Oriental Studies.

*University of New England*, 1954 (formerly New England University College, established in 1938), Armidale, New South Wales: Agricultural Economics, Arts, Rural Science, Science.

*University of New South Wales*, 1958 (formerly the New South Wales University of Technology, established in 1948), Sydney, New South Wales: Architecture, Arts, Commerce, Engineering, Medicine, Science, Applied Science.

*Monash University*, 1958, Melbourne, Victoria: Arts, Economics and Politics, Engineering, Medicine, Science.

Each of the universities was established by a parliamentary Act as an autonomous institution, with its own Governing Council or Senate. Nevertheless, the Australian universities receive substantial government support from both State and Commonwealth sources, only part of their income being derived from students' fees, private donations and bequests.

There are also three university colleges. *Newcastle University College*, founded in 1951, is affiliated with the University of New South Wales, and has degree courses in the faculties of Applied Science, Architecture, Arts, Commerce, Engineering and Science. *Townsville University College*, founded in 1961, is a constituent part of the University of Queensland. It offers some courses in the faculties of Agriculture, Arts, Commerce and



Economics, Dentistry, Education, Engineering, Law, Medicine, Science and Veterinary Science. Wollongong University College was opened in 1962, and is affiliated with the University of New South Wales. It offers some courses in the faculties of Engineering and Science. In 1966, the University of Adelaide plans to open additional facilities at Bedford Park, where four schools will be established initially in Language and Literature, Social Science, Physical Sciences and Biological Sciences.

**2. Organization of Courses.**—Bachelor degree courses are from three to six years in length, depending on the faculty, and for the majority full-time attendance is required. However, certain courses may also be undertaken by part-time or evening students. The university academic year begins in March and finishes in early December. At most universities, two short vacation periods divide the year into three terms, but there are four terms in some universities.

Several universities make provision for external tuition, whereby students living away from university towns may take a restricted number of courses by correspondence. The University of Queensland has developed a system of correspondence tuition which now caters not only for students within the State but for those in the Northern Territory, Papua and New Guinea, adjacent Pacific islands and Asian countries. External students living in Queensland receive tutorial assistance at university centres in the principal country towns.

The University of New England's Department of External Studies offers a wide range of subjects for external study, leading to the degrees of Bachelor of Arts and Bachelor of Letters, and to the Diploma of Education and the Diploma in Educational Administration. External students must attend short annual residential schools of instruction in their subjects, usually held at the university.

Post-graduate courses leading either to a Master's degree or to a Doctorate are available at all universities. Facilities cover the humanities, social sciences, pure and applied sciences.

Additional courses are constantly being introduced by the universities at both the undergraduate and the post-graduate level, to cover new fields of knowledge and specialization. In 1962 and 1963, the following courses were introduced:—the University of Sydney, undergraduate courses in Biblical Studies within the Faculty of Arts; at the University of Adelaide, the degree of Master of Town Planning in 1962, and one of Master of Business Management in 1963; at the University of Queensland, a course towards a Diploma in Speech Therapy in 1962; at the University of Western Australia, undergraduate courses in Archaeology in 1962; and at the University of Tasmania a course towards a Bachelor of Agricultural Science degree in 1962.

**3. Research.**—A wide range of research work and training in research techniques is carried out by the universities as part of their normal functions. Post-graduate students and members of university staff are engaged in research, both as part of their work for post-graduate degrees and also as part of group and departmental research programmes. Support for research in universities is derived from public and private sources, including funds and foundations established to encourage research in a particular field.

**4. Post-War University Expansion and Development.**—Since the 1939–45 War, the Australian universities have had to face greatly increased demands on their facilities, firstly from large numbers of ex-service personnel in the immediate post-war years, and later from greatly increased numbers of students leaving secondary schools each year. By 1961, the total enrolments in Australian universities had reached a figure of 57,672 compared with an early post-war peak of 32,453 in 1948.

To assist the universities to cope with these demands, increasing co-operation between the Commonwealth Government and the State Governments in university finance became necessary. The Commonwealth Government set up a Committee on Australian Universities, whose 1957 report ("The Murray Report") led to more finance becoming available to universities and to the setting up of a permanent body, the Australian Universities Commission, to advise the Commonwealth Government on university development. In the years since the Murray Report, the following major developments have taken place in the Australian university structure:—the University of New South Wales was created from the earlier University of Technology in 1958; in the same year, Monash University was established in Victoria; in 1960, the Australian National University was reconstituted, combining both undergraduate and post-graduate facilities and now consists of the Institute of Advanced Studies and the School of General Studies created from the Canberra University College; the University of Queensland set up the University College of Townsville in 1961; and the University of New South Wales established the Wollongong University College in 1962.

Despite rapid expansion, the Australian universities are still faced with a problem in providing tuition for all students who reach matriculation standard. As a result, several universities have found it necessary to impose quotas on enrolments in their courses.

The Commonwealth Government and governments of two States have set up their own committees to examine the problems of tertiary education. These committees, and the governments of other States, are directing much of their attention to the expansion of university facilities, both within existing institutions, and by planning the establishment of new universities or university colleges in the future.

5. **Teaching and Research Staff.**—University statistics have been reviewed, and those for 1961 are compiled on a different basis from that used in the past. The following table shows particulars of the teaching and research staff of the universities during 1961.

UNIVERSITIES: TEACHING AND RESEARCH STAFF, 1961

University	Teaching and research staff(a)						Research (only staff(a))	
	Full-time					Part-time (b)	Full-time	Part-time (c)
	Professors	Associate professors and readers	Senior lecturers and lecturers	Assistant lecturers, demonstrators, tutors and teaching fellows	Total			
Australian National University ..	20	8	71	9	108	27	202	..
Sydney ..	66	34	403	132	635	855	95	6
New South Wales ..	43	45	429	57	574	532	4	1
New England ..	18	11	122	52	203	36	27	2
Melbourne ..	52	69	349	159	629	652	136	9
Monash ..	12	..	36	18	66	13	..	..
Queensland ..	37	40	287	130	494	506	39	2
Adelaide ..	39	41	229	45	354	286	104	7
Western Australia ..	31	32	147	13	223	229	66	2
Tasmania ..	19	9	69	13	110	63	39	3
<b>Total ..</b>	<b>337</b>	<b>289</b>	<b>2,142</b>	<b>628</b>	<b>3,396</b>	<b>3,199</b>	<b>712</b>	<b>32</b>

(a) Teaching and research staff includes all staff with teaching functions, but excludes Research (only) staff which is shown separately. (b) In units of 100 hours per annum. (c) In equivalent full-time units of 35 hours per week.

The next table gives details of the teaching and research staff of Australian universities for each year from 1957 to 1961. For purposes of comparison, the figures for 1961 have been compiled on a similar basis to those for previous years and therefore differ from those shown in the table above.

UNIVERSITIES: TEACHING AND RESEARCH STAFF, SUMMARY, AUSTRALIA

Year	Professors	Readers (a)	Lecturers(b)		Demonstrators, tutors and research assistants		Honorary lecturers and demonstrators	External studies staff	Total
			Full-time	Part-time	Full-time (c)	Part-time			
1957 ..	255	215	1,413	958	394	405	51	30	3,721
1958 ..	270	238	1,643	982	471	458	51	37	4,150
1959 ..	297	267	1,854	955	585	493	123	64	4,638
1960 ..	331	272	2,015	925	683	508	89	86	4,909
1961 ..	358	311	2,367	1,005	708	608	69	78	5,504

(a) Includes associate professors, assistant professors and lecturers-in-charge. (b) Includes senior lecturers, assistant lecturers, senior fellows, fellows and research fellows. (c) Includes technical officers of the University of New South Wales.

6. Students.—(i) *Total.* The number of students enrolled for courses at the universities for the year 1961 is shown in the following table.

UNIVERSITIES: STUDENTS ENROLLED, 1961

University	Degree courses	Diploma courses		Certificate courses	Miscellaneous subjects	Adjusted total(a)
		Post-graduate	Sub-graduate			
Australian National University ..	1,079	..	5	..	135	1,178
Sydney .. ..	11,477	295	558	..	272	12,534
New South Wales(b) .. ..	7,759	124	589	..	375	8,838
New England .. ..	2,290	189	..	..	61	2,536
Melbourne .. ..	10,150	332	462	175	547	11,451
Monash .. ..	363	..	..	..	..	363
Queensland .. ..	6,907	64	631	1,539	445	9,525
Adelaide .. ..	4,829	425	1,091	18	251	6,250
Western Australia .. ..	3,379	90	..	..	76	3,537
Tasmania .. ..	1,069	76	66	203	101	1,460
<b>Total .. ..</b>	<b>49,302</b>	<b>1,595</b>	<b>3,402</b>	<b>1,935</b>	<b>2,263</b>	<b>57,672</b>

(a) Adjustment made for students enrolled for more than one course. (b) From 1961, a new degree of B.Sc. (Technology) has replaced many sub-graduate diploma courses.

Of the students enrolled in 1961, 44,264 were males and 13,408 females. Included in those enrolled for degrees were 234 enrolled for higher degree courses at the Australian National University, 850 in Sydney, 478 at the University of New South Wales, 105 at the University of New England, 479 in Melbourne, 16 in Monash, 332 in Queensland, 331 in Adelaide, 264 in Western Australia and 81 in Tasmania, a total of 3,170.

The following table shows the number of students enrolled at Australian universities for each of the years from 1957 to 1961.

UNIVERSITIES: STUDENTS ENROLLED, SUMMARY, AUSTRALIA

Year	Degree courses		Diploma courses		Certificate courses	Miscellaneous subjects	Adjusted total(a)
	Higher degrees	Bachelor degrees	Post-graduate	Sub-graduate			
1957 .. ..	1,357	26,197	735	5,855	1,115	1,670	36,568
1958 .. ..	1,672	29,965	846	6,168	1,427	2,058	41,492
1959 .. ..	2,226	34,108	1,007	6,405	1,575	2,367	47,151
1960 .. ..	2,770	38,934	1,309	6,898	1,786	2,300	53,391
1961(b) .. ..	3,170	(b)46,132	1,595	(b)3,402	1,935	2,263	57,672

(a) Adjustment made for students enrolled for more than one course. (b) From 1961, a new degree of B.Sc. (Technology) replaced many sub-graduate diploma courses at the University of New South Wales.

(ii) *New Students Enrolled.* The number of new students enrolled for courses at the universities during the year 1961 is shown in the following table.

## UNIVERSITIES: NEW STUDENTS ENROLLED, 1961

University	Degree courses	Diploma courses		Certificate courses	Miscellaneous subjects	Adjusted total(a)
		Post-graduate	Sub-graduate			
Australian National University ..	466	..	..	..	91	535
Sydney .. ..	3,153	85	98	..	35	3,371
New South Wales(b) ..	2,311	43	75	..	263	2,692
New England .. ..	851	82	..	..	29	960
Melbourne .. ..	2,360	20	157	15	228	2,733
Monash .. ..	363	..	..	..	..	363
Queensland .. ..	1,796	3	180	528	236	2,724
Adelaide .. ..	1,251	1	364	2	70	1,665
Western Australia ..	779	3	..	..	24	806
Tasmania .. ..	284	2	18	75	41	414
<b>Total .. ..</b>	<b>13,614</b>	<b>239</b>	<b>892</b>	<b>620</b>	<b>1,017</b>	<b>16,263</b>

(a) Adjustment made for students enrolled for more than one course. (b) From 1961, a new degree of B.Sc. (Technology) has replaced many sub-graduate diploma courses.

Of the new students enrolled in 1961, 11,643 were males and 4,620 females. Included in those enrolled for degrees were 349 enrolled for higher degree courses—Australian National University, 92; Sydney, 34; University of New South Wales, 74; New England, 31; Melbourne, 41; Monash, 16; Queensland, 27; Adelaide, 19; Western Australia, 10; and Tasmania, 5.

The following table shows the number of new students enrolled at Australian universities during each of the years from 1957 to 1961.

## UNIVERSITIES: NEW STUDENTS ENROLLED, SUMMARY, AUSTRALIA

Year	Degree courses		Diploma courses		Certificate courses	Miscellaneous subjects	Adjusted total(a)
	Higher degrees	Bachelor degrees	Post-graduate	Sub-graduate			
1957 .. ..	119	7,417	121	1,601	333	772	10,316
1958 .. ..	211	8,949	92	1,657	457	1,038	12,231
1959 .. ..	252	10,099	198	1,712	483	1,139	13,803
1960 .. ..	278	11,647	242	1,985	526	1,094	15,685
1961(b) ..	349	13,265	239	892	620	1,017	16,263

(a) Adjustment made for students enrolled for more than one course. (b) From 1961, a new degree of B.Sc. (Technology) replaced many sub-graduate diploma courses at the University of New South Wales.

(iii) *Full-time, Part-time and External Students.* The following table classifies students at each university according to whether they were studying full-time, part-time or externally.

## UNIVERSITIES: FULL-TIME, PART-TIME AND EXTERNAL STUDENTS, 1961

University	Full-time	Part-time	External	Total
Australian National University ..	488	690	..	1,178
Sydney .. ..	9,428	3,106	..	12,534
New South Wales .. ..	2,471	6,329	38	8,838
New England .. ..	694	142	1,700	2,536
Melbourne .. ..	7,226	3,720	505	11,451
Monash .. ..	334	29	..	363
Queensland .. ..	3,854	3,058	2,613	9,525
Adelaide .. ..	3,562	2,270	418	6,250
Western Australia ..	1,988	1,183	366	3,537
Tasmania .. ..	766	544	150	1,460
<b>Total .. ..</b>	<b>30,811</b>	<b>21,071</b>	<b>5,790</b>	<b>57,672</b>

The next table shows full-time, part-time and external students enrolled at Australian universities during each of the years from 1957 to 1961.

**UNIVERSITIES: FULL-TIME, PART-TIME AND EXTERNAL STUDENTS, SUMMARY, AUSTRALIA**

Year					Full-time	Part-time	External	Total
1957..	..	..	..	..	22,074	10,607	3,887	36,568
1958..	..	..	..	..	25,535	11,392	4,565	41,492
1959..	..	..	..	..	28,394	13,893	4,864	47,151
1960..	..	..	..	..	31,590	16,304	5,497	53,391
1961(a)	..	..	..	..	30,811	21,071	5,790	57,672

(a) The figures of full-time and part-time students in 1961 are not comparable with those shown for previous years, as in 1961 all universities used a uniform classification of students which differed from that used previously by some universities.

(iv) *Assistance to Students.* The Commonwealth Government, through the Commonwealth Scholarships Board, grants undergraduate and post-graduate scholarships to university students. (Details of the Commonwealth Scholarship Scheme are given on page 755.) Commonwealth, State and local governments also award cadetships and other assistance to their employees. Foreign students are assisted by the Commonwealth Government under arrangements such as the Colombo Plan.

The Universities themselves grant exhibitions and scholarships as well as special assistance to teachers, etc.

The following table gives details of students assisted at each university in 1961.

**UNIVERSITIES: ASSISTED STUDENTS, 1961**

University	Source of assistance					Type of course	
	Commonwealth Government	State Governments	Universities	Other	Adjusted total (a)	Higher degrees	Other
Australian National University ..	262	..	302	21	536	186	350
Sydney ..	4,272	327	2,095	253	6,313	270	6,043
New South Wales ..	1,310	620	1,239	1,592	4,229	299	3,930
New England ..	226	345	1,039	18	1,607	79	1,528
Melbourne ..	3,521	2,085	2,706	448	6,817	121	6,696
Monash ..	64	96	9	3	172	10	162
Queensland ..	2,084	614	322	226	3,246	184	3,062
Adelaide ..	1,446	1,474	1,188	107	3,785	211	3,574
Western Australia ..	944	550	54	45	1,518	71	1,447
Tasmania ..	306	391	71	13	730	21	709
<b>Total ..</b>	<b>14,435</b>	<b>6,502</b>	<b>9,025</b>	<b>2,726</b>	<b>28,953</b>	<b>1,452</b>	<b>27,501</b>

(a) Adjustment made for students assisted from more than one source.

The next table shows the numbers of assisted students at Australian universities in the years 1957 to 1961.

## UNIVERSITIES: ASSISTED STUDENTS, SUMMARY, AUSTRALIA

Particulars	1957	1958	1959	1960	1961
Government assistance ..	14,700	16,532	18,756	20,345	20,937
University assistance ..	4,243	4,875	5,958	6,649	9,025
Other assistance ..	2,006	2,221	2,278	2,648	2,726
Adjusted Total(a) ..	18,155	20,645	23,342	26,061	28,953

(a) Adjustment made for students assisted from more than one source.

(v) *Resident Students.* In 1961, 4,424 full-time and 194 part-time students were in residence at affiliated colleges, halls of residence and university hostels. The 4,618 students in residence were distributed as follows:—Australian National University, 262; Sydney, 776; New South Wales, 192; New England, 619; Melbourne, 1,026; Queensland, 865; Adelaide, 361; Western Australia, 341; and Tasmania, 176. There were 3,422 male students and 1,196 female students in residence.

7. *Degrees Conferred, etc.*—The following table shows the number of degrees conferred and diplomas and certificates granted for males and females separately at each university during the year 1961.

## UNIVERSITIES: DEGREES CONFERRED, AND DIPLOMAS AND CERTIFICATES GRANTED, 1961

Course	Aus- tralian National Uni- versity		Sydney		New South Wales		New Eng- land		Mel- bourne		Queens- land		Ade- laide		West- ern Aus- tralia		Tas- mania		Aus- tralia	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<b>Degrees—</b>																				
Arts ..	8	2	209	213	22	20	71	38	195	191	79	56	49	46	82	55	27	26	742	647
Divinity ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Music ..	..	..	..	1	..	..	..	..	..	14	1	..	..	..	..	..	..	..	9	15
Law ..	..	..	89	9	..	..	..	..	97	16	21	1	18	1	11	2	8	..	244	29
Commerce/Econo- mics ..	2	..	62	3	43	3	..	..	153	30	69	4	34	1	6	..	20	1	389	42
Education ..	..	..	12	1	..	..	..	..	44	11	13	4	..	..	25	4	..	..	94	20
Social Studies ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
Science ..	16	1	209	79	192	11	36	9	185	55	126	38	147	27	48	17	36	10	995	247
Architecture and Town Planning ..	..	..	15	5	10	..	..	..	24	4	6	..	5	..	..	..	..	..	60	9
Engineering ..	..	..	117	..	193	..	..	..	137	..	103	..	113	..	31	..	11	..	705	..
Surveying ..	..	..	..	..	..	..	..	..	1	..	4	..	..	..	..	..	..	..	5	..
Dentistry ..	..	..	47	5	..	..	..	..	14	2	35	4	13	3	8	3	..	..	117	17
Medicine ..	..	..	191	27	..	..	..	..	131	26	57	7	59	11	15	..	..	..	453	71
Physiotherapy ..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Agriculture ..	..	..	51	9	..	..	10	1	41	5	35	..	27	1	13	..	..	..	177	16
Agricultural Econo- mics ..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..
Forestry ..	..	..	9	..	..	..	..	..	11	..	10	..	..	..	1	..	1	..	32	..
Veterinary Science ..	..	..	34	4	..	..	..	..	..	..	24	..	..	..	..	..	..	..	58	4
<b>Total ..</b>	<b>26</b>	<b>3</b>	<b>1,045</b>	<b>356</b>	<b>460</b>	<b>34</b>	<b>118</b>	<b>48</b>	<b>1,042</b>	<b>354</b>	<b>583</b>	<b>119</b>	<b>465</b>	<b>90</b>	<b>240</b>	<b>81</b>	<b>103</b>	<b>37</b>	<b>4,082</b>	<b>1,122</b>
<b>Post-graduate Diplo- mas—</b>																				
Education ..	..	..	84	106	6	9	36	45	38	25	45	13	12	7	46	9	9	9	276	223
Engineering ..	..	..	1	..	2	..	..	..	2	..	5	..	..	..	..	..	..	..	10	..
Medicine ..	..	..	22	1	..	..	..	..	13	1	..	..	..	..	..	..	..	..	35	2
Agriculture ..	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1
<b>Total ..</b>	<b>..</b>	<b>..</b>	<b>110</b>	<b>108</b>	<b>8</b>	<b>9</b>	<b>36</b>	<b>45</b>	<b>53</b>	<b>26</b>	<b>50</b>	<b>13</b>	<b>12</b>	<b>7</b>	<b>46</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>324</b>	<b>226</b>
<b>Sub-graduate Diplo- mas ..</b>	<b>..</b>	<b>..</b>	<b>13</b>	<b>12</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>26</b>	<b>45</b>	<b>49</b>	<b>29</b>	<b>84</b>	<b>80</b>	<b>..</b>	<b>..</b>	<b>2</b>	<b>1</b>	<b>174</b>	<b>167</b>
<b>Certificates ..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>8</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>164</b>	<b>47</b>	<b>2</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>3</b>	<b>10</b>	<b>177</b>	<b>57</b>	<b>..</b>

The next table shows total degrees conferred at all Australian universities during each of the years 1957 to 1961.

### UNIVERSITIES: DEGREES CONFERRED, SUMMARY: AUSTRALIA

Degree	1957			1958			1959			1960			1961		
	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.
Arts ..	476	400	876	621	459	1,080	657	540	1,197	752	597	1,349	742	647	1,389
Divinity ..	1	..	1	1	..	1	5	..	5	..	..	..	1	..	1
Music ..	2	4	6	8	12	20	5	16	21	9	26	35	9	15	24
Law ..	160	12	172	180	23	203	185	24	209	218	24	242	244	29	273
Commerce/															
Economics ..	227	14	241	211	17	228	243	16	259	288	28	316	389	42	431
Education ..	110	18	128	111	14	125	88	15	103	87	19	106	94	20	114
Social Studies ..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	4
Science ..	576	140	716	618	134	752	701	161	862	885	193	1,078	995	247	1,242
Architecture and															
Town Planning ..	47	10	57	57	9	66	54	5	59	65	9	74	60	9	69
Engineering ..	441	1	442	465	..	465	517	2	519	551	..	551	705	..	705
Surveying ..	10	..	10	4	..	4	4	..	4	7	..	7	5	..	5
Dentistry ..	88	5	93	116	12	128	103	14	117	118	10	128	117	17	134
Medicine ..	397	61	458	368	66	434	361	63	424	397	72	469	453	(a) 72	(a) 525
Agriculture and															
Agricultural Eco-															
nomics ..	81	15	96	109	9	118	149	11	160	146	16	162	178	16	194
Forestry ..	14	..	14	26	..	26	16	..	16	20	1	21	32	..	32
Veterinary Science	45	2	47	42	4	46	40	2	42	56	2	58	58	4	62
Total—															
Higher Doctorates	25	1	26	11	1	12	29	2	31	21	1	22	24	2	26
Ph.D.'s ..	99	7	106	85	5	90	113	10	123	127	10	137	110	16	126
Master's Degrees	168	32	200	179	33	212	201	27	228	223	31	254	283	26	309
Bachelor's De-															
grees ..	2,383	642	3,025	2,662	720	3,382	2,785	830	3,615	3,229	955	4,184	3,665	1,078	4,743
Grand Total ..	2,675	682	3,357	2,937	759	3,696	3,128	869	3,997	3,600	997	4,597	4,082	1,122	5,204

(a) Includes one degree in physiotherapy.

8. Finance.—(i) *General*. Australian universities are incorporated by statute. Since their establishment, they have come to depend greatly on government grants for their income. In recent years, large amounts have been required for new buildings, as well as for current expenditure to provide staff and equipment to cope with increased student enrolments. In 1961, income other than from State and Commonwealth grants, including student fees, amounted to only about one fifth of the total income. Income from non-government sources includes grants, mainly for research purposes, from businesses, international foundations, and private individuals. Some income is also received from endowments.

(ii) *Financial Assistance from the Commonwealth Government*. (a) *General*. Prior to 1939, Commonwealth assistance was almost entirely concerned with research projects carried out by or in collaboration with the universities. During and since the 1939–45 War, the Commonwealth extended assistance to university students, at first to increase the number of highly trained people required for the war effort, then with the object of rehabilitating ex-servicemen, and finally as a social service benefit to the community. For the purpose of reconstruction training, the Commonwealth Government made available to the universities approximately £1 million for buildings and £500,000 for equipment.

Following a report submitted by a committee of inquiry appointed to report on university finances and requirements, the Commonwealth, since 1951, has made matched grants to the States for recurrent expenditure on university purposes. The Commonwealth also makes additional unmatched recurrent grants, assists with the capital needs of the universities for building projects and for equipment, and provides grants for the building programmes of residential colleges affiliated with universities.

In 1959, following the Report of the Committee on Australian Universities, the Commonwealth Government established the Australian Universities Commission under the *Australian Universities Commission Act 1959*. The Commission's principal functions are to advise the Prime Minister on financial assistance to Commonwealth universities and to States in relation to their universities and also on the balanced development of Australian universities. The Commission commenced its work in July, 1959. The first report of the Commission, covering the period 1961-63, was presented in October, 1960. The Commission recommended that Commonwealth grants in the period should be £93,300,000, approximately twice as great as grants available in the period 1958-60. The *States Grants (Universities) Act 1962* gave effect to the recommendations of a committee appointed to advise the Commission on the level of university salaries.

(b) *Commonwealth General Grant for Recurrent Expenditure*. This is a continuation of matched grants provided since 1951, and the maximum amount available in 1962 is shown in the following table.

**UNIVERSITIES: COMMONWEALTH GENERAL GRANT FOR RECURRENT EXPENDITURE, 1962.**

University								Amount
								£'000
Sydney .. .. .	..	..	..	..	..	..	..	1,726
New South Wales .. .. .	..	..	..	..	..	..	..	1,524
New England .. .. .	..	..	..	..	..	..	..	506
Melbourne .. .. .	..	..	..	..	..	..	..	1,453
Monash .. .. .	..	..	..	..	..	..	..	322
Queensland .. .. .	..	..	..	..	..	..	..	1,058
Adelaide .. .. .	..	..	..	..	..	..	..	904
The South Australian Institute of Technology .. .. .	..	..	..	..	..	..	..	76
Western Australia .. .. .	..	..	..	..	..	..	..	658
Tasmania .. .. .	..	..	..	..	..	..	..	293
<b>Total .. .. .</b>	..	..	..	..	..	..	..	<b>8,520</b>

From 1961, matched grants have been made on a basis of £1 of Commonwealth money for every £1.85 of income received by a university from fees and State grants. From 1951 to 1960, the matching ratio was, in general, £1 to £3.

(c) *Commonwealth Grants for the Teaching and Administrative Costs of Residential Colleges*. From 1961, there has been a change in the method of calculating these unmatched grants for residential colleges administered by or affiliated with a university. The grants consist of payments each year of £2,000 to each college, plus £15 for each resident student, and, a further £5 for each non-resident student receiving tutorial assistance. The Commonwealth total grant paid in 1962 was £164,445.

(d) *Commonwealth Grants for Selected Building Projects*. Those grants, for the period 1961-63, are shown in detail in the Second Schedule to the 1960 Act. Payments are made up to a given maximum for each project, on the basis of £1 from the Commonwealth for every £1 of State grants. The total Commonwealth grant for each University is shown in the following table.



**UNIVERSITIES: COMMONWEALTH GRANTS FOR BUILDING PROJECTS, ETC.,  
1961-63**

University								Amount
								£'000
Sydney .. .. .	..	..	..	..	..	..	..	1,450
New South Wales .. .. .	..	..	..	..	..	..	..	2,880
New England .. .. .	..	..	..	..	..	..	..	670
Melbourne .. .. .	..	..	..	..	..	..	..	1,056
Monash .. .. .	..	..	..	..	..	..	..	3,890
Queensland .. .. .	..	..	..	..	..	..	..	1,100
Adelaide .. .. .	..	..	..	..	..	..	..	1,060
The South Australian Institute of Technology .. .. .	..	..	..	..	..	..	..	10
Western Australia .. .. .	..	..	..	..	..	..	..	1,200
Tasmania .. .. .	..	..	..	..	..	..	..	900
<b>Total .. .. .</b>	..	..	..	..	..	..	..	<b>14,216</b>

In addition, a grant of 5 per cent. of the cost of each project is made for equipping and furnishing buildings. This grant is also matched £1 for £1 by the States. In the period 1958-60, the universities received an unmatched Commonwealth grant for equipment equal to 16 per cent. of the cost to the Commonwealth of each project.

(e) *Commonwealth Grants for Buildings for Residential Colleges.* The Commonwealth also makes available, at the request of a State, grants for buildings for residential colleges affiliated with a university. Commonwealth grants are up to one half of the cost for the purchase, erection or alteration of a building at an affiliated residential college. The maximum amount available for distribution in each State in the period 1961-63 is shown in the following table.

**UNIVERSITIES: MAXIMUM COMMONWEALTH GRANTS FOR RESIDENTIAL  
COLLEGE BUILDINGS, 1961-63**

University								Amount
								£'000
Sydney .. .. .	..	..	..	..	..	..	..	142
New South Wales .. .. .	..	..	..	..	..	..	..	150
Melbourne .. .. .	..	..	..	..	..	..	..	223
Queensland .. .. .	..	..	..	..	..	..	..	195
Adelaide .. .. .	..	..	..	..	..	..	..	101
Western Australia .. .. .	..	..	..	..	..	..	..	120
Tasmania .. .. .	..	..	..	..	..	..	..	69
<b>Total .. .. .</b>	..	..	..	..	..	..	..	<b>1,000</b>

(f) *Commonwealth Grants for Equipment.* Under the 1960 Act, special provision is made, for the first time, to assist universities to purchase items of equipment. A total Commonwealth grant of £500,000 is available for this purpose, grants being made available on the basis of £1 from the Commonwealth for every £1 of State grants. This grant is made available in two parts. The maximum amount of the first part available to each university is shown in the following table.

## UNIVERSITIES: COMMONWEALTH GRANTS FOR EQUIPMENT, 1961-63

University								Amount
								£'000
Sydney ..	..	..	..	..	..	..	..	45
New South Wales ..	..	..	..	..	..	..	..	40
New England ..	..	..	..	..	..	..	..	15
Melbourne ..	..	..	..	..	..	..	..	45
Monash ..	..	..	..	..	..	..	..	15
Queensland ..	..	..	..	..	..	..	..	25
Adelaide ..	..	..	..	..	..	..	..	25
Western Australia ..	..	..	..	..	..	..	..	25
Tasmania ..	..	..	..	..	..	..	..	15
<b>Total</b> ..	..	..	..	..	..	..	..	<b>250</b>

The remaining half of the grant (totalling £250,000) is to be distributed among universities on the basis of grants for individual items specially approved by the Commission.

The grants for capital building projects at universities and residential colleges and capital equipment grants for universities are payable at any time within the period 1961-63.

(g) *Commonwealth Grants for Teaching Hospital Projects.* The *States Grants (Universities) Act* 1962 gave effect to the recommendations of a committee appointed to advise the Commission on the teaching costs of medical hospitals. This Act makes provision for the payment to universities of grants for associated teaching hospitals. Commonwealth grants for particular hospital building projects and specific items of equipment in the period 1961-63 are shown in the Fifth Schedule to the Act. Payments are made up to a given maximum for each building project or item of equipment on the basis of £1 from the Commonwealth for every £1 of State grants. The total Commonwealth grant for each university is shown in the following table.

## UNIVERSITIES: COMMONWEALTH GRANTS FOR TEACHING HOSPITAL BUILDING PROJECTS, ETC., 1961-63

University								Amount
								£'000
Sydney ..	..	..	..	..	..	..	..	356
New South Wales ..	..	..	..	..	..	..	..	282
Melbourne ..	..	..	..	..	..	..	..	327
Monash ..	..	..	..	..	..	..	..	397
Queensland ..	..	..	..	..	..	..	..	270
Adelaide ..	..	..	..	..	..	..	..	103
Western Australia ..	..	..	..	..	..	..	..	31
<b>Total</b> ..	..	..	..	..	..	..	..	<b>1,766</b>

In addition, a grant of 5 per cent. of the cost of each project is available for equipping and furnishing each building; this grant is also matched £1 for £1 by the States.

(iii) *University Income.* The following table summarizes the income of each university in 1961. The statistics are compiled on a different basis from those published in previous years.

**UNIVERSITIES: INCOME, 1961**  
(£'000)

University	State Government grants	Commonwealth Government grants	Student fees	Other	Total income
Australian National University	..	5,266	51	347	5,664
Sydney .. ..	2,727	2,212	978	1,099	7,016
New South Wales .. ..	3,174	2,872	562	462	7,070
New England .. ..	990	671	92	170	1,923
Melbourne .. ..	1,973	1,606	956	1,062	5,597
Monash .. ..	1,703	2,250	35	11	3,999
Queensland .. ..	2,035	1,174	569	402	4,180
Adelaide .. ..	1,694	1,310	227	276	3,507
Western Australia .. ..	1,119	836	136	312	2,403
Tasmania .. ..	642	501	69	63	1,275
<b>Total .. ..</b>	<b>16,057</b>	<b>18,698</b>	<b>3,675</b>	<b>4,204</b>	<b>42,634</b>

(iv) *University Expenditure.* The following table summarizes the expenditure of each university in 1961. The statistics are compiled on a different basis from those published in previous years.

**UNIVERSITIES: EXPENDITURE, 1961**  
(£'000)

University	Teaching and research	Administration and general overhead	Libraries	Buildings, premises, grounds	Sundry auxiliary expenditure	Total expenditure
Australian National University .. ..	3,238	283	124	1,239	169	5,053
Sydney .. ..	4,402	523	192	2,049	137	7,303
New South Wales .. ..	3,123	394	193	3,558	185	7,453
New England .. ..	836	199	63	669	276	2,043
Melbourne .. ..	3,229	351	202	1,857	475	6,114
Monash .. ..	662	123	174	2,948	14	3,921
Queensland .. ..	2,324	262	126	1,366	83	4,161
Adelaide .. ..	2,099	204	131	786	147	3,367
Western Australia .. ..	1,285	145	89	814	230	2,563
Tasmania .. ..	610	102	63	498	51	1,324
<b>Total .. ..</b>	<b>21,808</b>	<b>2,586</b>	<b>1,357</b>	<b>15,784</b>	<b>1,767</b>	<b>43,302</b>

### § 10. Other Tertiary Institutions

1. *General.*—In addition to the degree-granting universities, there is a variety of institutions offering courses at tertiary level; the courses may lead to a certificate, diploma, or similar qualification. Included among the institutions are technical colleges, which have been described in § 6.

2. *Teachers' Colleges.*—The State Education Departments conduct teachers' colleges to train teachers for government schools. There are eight colleges in New South Wales, twelve in Victoria, three in South Australia, and two each in Queensland, Western Australia and Tasmania, making a total of 29 colleges. Two of these opened for the first time in 1962 (Wollongong Teachers' College in New South Wales and Western Teachers' College in South Australia), and one in 1963 (Hobart Teachers' College in Tasmania).

A variety of teacher training courses is provided in these colleges, including those for primary teachers, secondary teachers, and those specializing in teaching infants, handicapped children, art, music, and handicrafts. A description of these courses is given in § 3.

Teachers' colleges are co-educational, and, in the larger States, have been established in country areas as well as in cities. Students entering them have completed their secondary schooling and are usually about 17 years of age. The principal and staff of the colleges are responsible to the Director of Education in the State concerned.

**3. Kindergarten Training Colleges.**—The Kindergarten Unions in all States except Tasmania have established teacher training colleges providing three-year courses. The minimum entrance age is usually 17 years, and the Leaving Certificate is required for admission. In addition, in New South Wales, the Sydney Day Nursery and Nursery Schools' Association maintains a training college.

The pre-school teacher training courses in these colleges are all full-time diploma courses and are similar in content and standards. Teachers are trained for work with children between the ages of 2 and 7 years and the training courses include the study of general educational theory, the theory of pre-school education, general cultural subjects, and art and crafts (including music). In addition, training is given in practical pre-school teaching.

**4. Agricultural Colleges.**—There are seven State agricultural colleges—Hawkesbury and Wagga (New South Wales), Longerenong and Dookie (Victoria), Gatton (Queensland), Roseworthy (South Australia), and Muresk (Western Australia), offering a comprehensive course of two or three years leading to the award of a Diploma in Agriculture, or in a specialized field such as animal husbandry, dairy manufactures, and horticulture. The School of Horticulture, Burnley, Victoria, also offers a three-year diploma course.

Agricultural colleges are government institutions administered by the State Departments of Agriculture in New South Wales, Victoria, South Australia and Western Australia and by the State Department of Education in Queensland. Their purpose is to teach the principles and practices of agriculture and its specialized branches to those intending to take up farming as a career and to those who propose to enter such occupations as agricultural field officer or technical officer in food processing industries.

The minimum entrance standard is the Intermediate Certificate or Junior Public examination in all cases except Western Australia where it is Sub-leaving. As entry is competitive, there is a tendency for students to hold better than the minimum qualifications. All the colleges are fully residential, and the age at which students may enter them varies from 15 to 17 years, depending on the college and the type of course.

In addition to their formal courses of training, agricultural colleges offer short courses of from three days to one month to farmers and teachers in country districts.

**5. Schools of Forestry.**—Training in Forestry is carried out at the Australian Forestry School, Canberra, and at the Creswick School of Forestry in Victoria. Reference to these institutions is made in Chapter XXIII. Forestry.

**6. Conservatoria of Music.**—There are conservatoria of music in four States. Those in Victoria and South Australia are attached to the Universities of Melbourne and Adelaide respectively, while the New South Wales State Conservatorium and the Queensland Conservatorium are each controlled by the State Department of Education.

All four conservatoria offer diploma courses for which matriculation status is not required; at Melbourne and Adelaide, degree courses are also available to matriculated students.

**7. Service and Administrative Colleges.**—Each of the three Armed Services maintains institutions for the training of officers. Descriptions of these can be found in Chapter XXVI. Defence. Two of the institutions, the Royal Military College, Duntroon, Australian Capital Territory, and the Royal Australian Air Force College, Point Cook, Victoria, have arrangements with universities whereby their graduates may enter university courses at an advanced stage.

The Australian School of Pacific Administration, controlled by the Department of Territories, trains students in the various aspects of service and administration in Commonwealth Territories, including teaching.

8. **The Australian Administrative Staff College.**—The Australian Administrative Staff College was opened in 1957, following discussions among prominent leaders in business and government on the need to raise the standards of administration in all walks of Australian life.

The College is a private body, working in close co-operation with governments and other public bodies, the armed services and the Trade Union movement. It was founded and is owned by a large group of the leading Australian companies. It has as its permanent premises a nineteenth century mansion at Mt. Eliza, thirty miles from Melbourne.

The College is based on the model of the Administrative Staff College at Henley-on-Thames, England, but incorporates features drawn from comparable activities in other parts of the world. Its courses are conducted by a Principal, a small permanent directing staff, and by extensive use of visits by practising senior administrators.

The College conducts a ten-week advanced course in administration designed to enable mature administrators to exchange their views and experiences and further their study of the problems which arise in any managerial work. There is also an intermediate course designed to offer a similar opportunity to men and women at a much earlier stage of their careers. The advanced course is offered thrice annually, and the intermediate course twice; both courses are fully residential. Each session of each course comprises forty diversely selected candidates. Certain scholarships are available for the advanced course.

The College has a library, and facilities for research in administrative fields.

## § 11. Commonwealth Activities in Educational Fields

1. **General.**—(i) *Fields of Activity.* Although education is primarily the responsibility of the States, the Commonwealth is engaged in educational activities incidental to its responsibilities in such areas as defence, external relations, immigration and social services. It is also responsible for public education in its own Territories. Activities of the Commonwealth in education are not administered by a single authority but are divided among a number of departments and instrumentalities. Education in Commonwealth Territories is described in Chapter V. The Territories of Australia; various schools and colleges for the defence services are treated in Chapter XXVI. Defence; the Australian Forestry School is mentioned in Chapter XXIII. Forestry; and other activities which may be considered broadly as educational are described in Chapter XIV. Transport and Communication (Broadcasting and Television) and elsewhere in that chapter.

(ii) *The Commonwealth Office of Education.* This was set up under the *Education Act 1945* to provide advice to the Commonwealth Government on educational matters and to serve as a channel for liaison between Commonwealth and State educational authorities. Some of its major commitments are connected with international relations in education, including the association of Australia with the aims and activities of the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the planning and supervision of training for overseas students given awards by the Australian Government to attend Australian universities and similar institutions. The Office also acts as the administering authority for Australian participation in the Scheme of Commonwealth Co-operation in Education. The techniques of teaching English as a second language is another of its concerns, in connexion with both the assimilation of immigrants and tuition for sponsored foreign students.

(iii) *The Commonwealth Scholarships Board.* The Office of Education also provides the secretariat for the Commonwealth Scholarships Board. This Board under its former title of the Universities Commission was also established by the *Education Act 1945*. Prior to 1945, the Commission had functioned under wartime *National Security Regulations*. The Board consists of a chairman, who is the Director of the Office of Education, and three other members. The main responsibilities of the Board at present are advising the Government on the policy and co-ordinating the administration of the Commonwealth Scholarship Scheme and of Commonwealth Post-Graduate Awards. The Board is responsible for arranging and supervising the training of ex-service personnel and war widows at university and university type institutions under the Commonwealth Reconstruction Training Scheme, the Korea and Malaya Training Scheme and the Disabled Members' and Widows' Training Scheme.

2. **Assistance to Students.**—The Commonwealth Government provides financial assistance to students who are undergoing tertiary training through a number of scholarship schemes, all of which are administered by the Commonwealth Scholarships Board. The most extensive of these is the Commonwealth Scholarship Scheme, under which 4,000 scholarships are offered annually to undergraduates at universities and other approved institutions.

The majority of the undergraduate scholarships are Open Entrance awards allocated amongst the States on a population basis, and awarded competitively on the results of examinations accepted for matriculation in each State. Later Year awards are also available to students who have completed one or more years of a course, and Mature Age awards are available to older persons in the 25 to 30 years age group. All successful applicants have their fees paid. In addition, scholarship holders may be paid a living allowance subject to a means test. As from 1st April, 1962, the maximum rates of allowance have been £383 10s. per annum for a scholar living away from home and £247 per annum when he lives at home.

At 30th September, 1962, 13,782 Commonwealth scholars were enrolled in undergraduate courses including 4,230 new award holders. Up to the end of 1962, 19,462 scholars had completed undergraduate courses under the scheme.

In 1959, a scheme of Commonwealth Post-Graduate Awards tenable at Australian universities was introduced under which 100 awards were made available each year. The benefits comprise a living allowance without means test, and payment of university fees. From 1962, the possible number of Post-Graduate Awards was increased to 125. The Commonwealth Government contribution towards the stipend in respect of each award was at the same time increased from £700 to £800 per annum. Awards may be renewed annually up to a maximum period of four years; in 1962, 266 students were holding awards.

During 1962, the Commonwealth Scholarships Board also continued to arrange and supervise the training of ex-service personnel and war widows at university and university-type institutions. Training of this kind under the Commonwealth Reconstruction Training Scheme was completed at the end of 1961, a total of 21,424 students having completed training. At the end of 1962, 52 students were in training under the Korea and Malaya Training Scheme and the Disabled Members' and Widows' Training Scheme, 30 of them following full-time courses and 22 studying part-time.

3. **International Relations.**—The Commonwealth has been actively involved in the considerable extension which has recently taken place in relations and exchanges with other countries in the field of education. A significant encouragement to this growth has been membership in UNESCO, to which Australia has belonged since 1946 when the organization was founded.

Twelve specialist UNESCO committees in Australia are responsible for a wide and varied programme of activities and have helped to make Australia's contribution to many international conferences and seminars highly effective. Some of the Committees' projects include the organization of Australian and regional seminars, information programmes, and the preparation and circulation of travelling exhibitions which deal with subjects forming part of UNESCO's programme. The Australian National Advisory Committee for UNESCO co-ordinates the work of the specialist committees and advises the Commonwealth Government on Australian participation in UNESCO.

With the co-operation of educational institutions, State Education Departments and other bodies, the Commonwealth has accepted increasing commitments in schemes of international assistance and co-operation. The Colombo Plan Technical Co-operation Scheme, the United Nations Expanded Programme of Technical Assistance, and the Special Commonwealth African Assistance Plan are some of the programmes through which the Commonwealth Government is providing training for overseas students in Australia, and is sending Australian experts and equipment to many of the newly developing countries, especially in Asia and Africa. Australia is also actively sharing with other Commonwealth countries in the Scheme of Commonwealth Co-operation in Education which includes the Commonwealth Scholarship and Fellowship Plan. Other training schemes which the Commonwealth Government has established for developing countries are the Korean Training Scheme and the Australian International Awards Scheme. The total number of sponsored foreign students in Australian institutions in 1962 was 1,146, compared with about 400 in 1955.

Support is given to Australian participation in many international governmental and non-governmental organizations. For example, Australian educationists have attended yearly meetings of the International Bureau of Education, and regular contributions are made to the Bureau's international surveys into various aspects of education. Assistance has been given to bodies such as the Australian Teachers' Federation in sending delegates to meetings of the World Confederation of Organizations of the Teaching Profession.

**4. Grants for other Educational Purposes.**—The Commonwealth gives assistance to various educational schemes and institutions. Grants are made each year by the Commonwealth to the Australian Pre-school Association for the development of kindergarten education, to the Commonwealth National Fitness Council, to the Australian Council for Educational Research, to the Department of Tutorial Classes at the University of Sydney for the publication of the *Current Affairs Bulletin*, and to assist in the provision of training in Occupational Therapy, Physiotherapy and Nursing. The cost of the Departments of Indonesian and Malaysian Studies at the University of Melbourne and the University of Sydney is also met by the Commonwealth Government.

**5. Migrant Education.**—The Commonwealth Government's post-war immigration policy has brought to Australia a large number of immigrants with little or no knowledge of English. To assist their assimilation into the Australian community, a system of migrant education has been developed to teach them English and to give them information about Australia. This service is provided free of charge to immigrants above school leaving age.

Before arriving in Australia, migrants who do not speak English are given some instruction in English by shipboard education officers. Some may have attended classes in Europe organized by the Inter-governmental Committee for European Migration with which the Australian Government co-operates.

In Australia, evening classes are arranged by State Education Departments wherever nine or more migrants in country areas, or twelve or more migrants in city areas, wish to learn English. There is also available through State Education Departments a free correspondence course in English. In addition, English lessons are broadcast regularly by the Australian Broadcasting Commission. The Commonwealth Office of Education provides technical advice on all aspects of migrant education and is responsible for the preparation of teaching materials, while responsibility for the overall supervision of the programme rests with the Department of Immigration, which also meets the costs.

In March, 1962, 17,431 migrants were enrolled in classes and 9,389 were taking correspondence lessons. At the same time, 15,527 were receiving the monthly booklet accompanying the radio lessons. Since the inception of the programme in 1948, close to 500,000 migrants have been enrolled for English tuition.

**6. Technical Training by Government Departments.**—Although the needs of departments for trained staff are met by apprenticeship schemes and other technical college courses and by the universities, some departments provide training which is not available elsewhere. The most important field for which such training is provided is the training of telephone, telegraph, radio and television technicians by the Postmaster-General's Department. In 1961, this Department was training 4,343 technicians-in-training.

## § 12. Adult Education

**1. General.**—The term "adult education" as used in Australia refers mainly to non-vocational educational and cultural activities for adults. While the nature of the recognized adult education authorities varies from State to State, their major activities have many common features. Regular courses of lectures are organized on such topics as literature, music, drama, international affairs, languages and crafts. Some authorities also organize discussion groups, festivals and summer schools, and provide special services for groups in remote areas. In 1960, an Australian Association of Adult Education was formed, and its first Annual Conference was held in Adelaide in 1961. The Association handles matters pertaining to adult education at a national level and arranges liaison with similar bodies in other countries.

One of the first bodies active in the field of adult education in Australia was the Workers' Educational Association, which formed associations in all States in 1913. Its aims are to bring the universities into closer relationship with the community in general and to provide for higher education in civic and cultural subjects. These associations have been superseded by Adult Education Boards or Councils set up by the State Governments in Victoria, Queensland and Tasmania and by the University in Western Australia. In the other two States, New South Wales and South Australia, the associations continue to co-operate with the universities in their extension work and are given direct grants by the governments concerned.

The organization of adult education, and some of the activities in each State are described below.

2. *New South Wales.*—State Government grants for adult education are allocated on the advice of the Adult Education Advisory Board. Grants are made to the University of Sydney (Department of Tutorial Classes), the Workers' Educational Association, the University of New England (Department of Adult Education), the Public Library of New South Wales (Adult Education Section), and the Arts Council of Australia (New South Wales Division).

(i) *University of Sydney.* At the University of Sydney, there are two separate authorities concerned with adult education, the Extension Board and the Department of Tutorial Classes.

The Extension Board provides two forms of education—the extension of existing university education to the public in the form of lectures, or to graduates in the form of refresher courses; and the extension of academic education beyond the existing university curriculum, for example by special courses or classes in subjects such as scientific Russian and scientific German.

The Department of Tutorial Classes works in conjunction with the Workers' Educational Association through the Joint Committee for Tutorial Classes appointed by the university senate, and its activities include the provision of tutorial classes in a wide variety of subjects, discussion groups and "kits" to serve the needs of country districts and people who cannot be catered for by tutorial classes. It also publishes the fortnightly "Current Affairs Bulletin".

In 1961, there were 390 tutorial classes and discussion groups with a total enrolment of 6,684 at the University of Sydney.

(ii) *University of New England.* The Department of Adult Education at the University of New England brings university extension activities especially to the people of northern New South Wales and conducts classes in arts and social sciences in towns throughout this region. Short residential courses are held on topics of interest to primary producers in the area. Vacation schools attract participants from many other areas as well.

(iii) *Workers' Educational Association.* In addition to co-operating with the Sydney University Department of Tutorial Classes, the Workers' Educational Association itself provides classes in a wide variety of fields. It publishes *Highway*, a bi-monthly journal of adult education, and maintains a property near Sydney where short residential schools are held throughout the year. In 1961, the Association ran 69 classes, for which there were 3,164 enrolments.

(iv) *Public Library of New South Wales.* The Public Library of New South Wales Adult Education section provides an adult education library service for all classes and groups conducted by the bodies mentioned above.

(v) *New South Wales Education Department.* The New South Wales Education Department has established Evening Colleges consisting of classes held in school buildings and staffed largely by departmental teachers. Such colleges provide a wide range of educational, cultural and leisure activities for adolescents and adults, and at some there are facilities enabling adults to prepare for Intermediate and Leaving Certificate examinations.

(vi) *Arts Council of Australia.* Adult education of a more informal kind is provided by the New South Wales Division of the Arts Council of Australia which maintains a mobile theatre unit and organizes touring companies in ballet, opera and drama to country towns.



3. **Victoria.**—The Council of Adult Education is a government instrumentality established by the *Adult Education Act* 1946. Its aims are to stimulate adult education in Victoria and to encourage voluntary organizations and associations by giving them advice and assistance. Its activities include a variety of classes, usually lasting from 10 to 20 weeks, on topics ranging from social studies, psychology, language and literature, to crafts, music and drama. An annual 10-day summer school is another important activity. The Council publishes every two months a bulletin, *C.A.E. Newsletter* and a quarterly journal, *Adult Education*. Its group service assists, and provides programme material for, discussion groups formed by organizations and individuals throughout the State. In 1960–61, there were 7,600 enrolments for classes and 2,994 individual enrolments in 277 discussion groups.

A recent development of importance is the extension of the council's activities, including classes and discussion groups, to the prisons, as part of a general plan for penal reform in Victoria.

Through its community arts service, the Council organizes tours by musicians and by theatrical and other companies in country towns which otherwise would have no opportunity of seeing such performances.

The Council's income is derived mainly from a government grant, but also from student fees and Community Arts Service performances.

4. **Queensland.**—The Queensland Board of Adult Education was constituted in 1944 and is responsible under the Minister for Education for the provision of adult education facilities throughout the State. Under the executive officer of the Board are six district officers, one based in Brisbane and five in large country towns, who are responsible for organizing activities in country areas.

The cost of the programme is borne by the State Government and admission to all courses is free. Activities include lectures, group meetings on a variety of topics, generally short-term but some of which extend over a full year, and film screenings. Library and film services are provided.

In 1961, there was a total attendance of 130,288 at 1,590 lectures and class meetings.

5. **South Australia.**—Since 1917, the University of Adelaide, through the Joint Committee for Tutorial Classes, has provided in the metropolitan area a series of tutorial classes, lecture classes and study circles on a wide range of subjects of cultural and current interest, in co-operation with the Workers' Educational Association of South Australia.

In 1957, a Department of Adult Education was established in the University and a full-time Director appointed. A wide range of university extension courses and educational conferences, summer schools and seminars, including a number dealing with subjects at post-graduate level, are organized directly by the University. In 1961, enrolments for tutorial and university extension classes totalled 2,613, for special schools and seminars 1,451, and for discussion groups 334.

The Workers' Educational Association of South Australia, in addition, carries on an independent educational programme of classes, schools, and exhibitions and film festivals.

The State Education Department also arranges an extensive programme of educational activities for adults.

6. **Western Australia.**—Adult education in Western Australia is organized by the Adult Education Board established in 1928 under the terms of the statutes of the University of Western Australia. The Board has a considerable degree of autonomy. Its executive officer is the Director of Adult Education.

The Board conducts, in the metropolitan areas, classes, refresher courses and short schools, conferences, seminars and public lectures, and maintains a library. Classes were held in 1960 with a total enrolment of 1,785. The Board's country work operates mainly through a box library scheme for discussion groups, of which there were 72 in 1960. Lecture tours and week-end schools are held, and local adult education is encouraged through local committees. Metropolitan work and country work are drawn together in an annual summer school. The Board also operates a community arts service and arranges screenings of foreign films. Regional drama festivals and music festivals are arranged, culminating in the annual Festival of Perth, inaugurated and administered by the Board.

7. **Tasmania.**—Some form of adult education has existed since the formation in 1913 of a Workers' Educational Association, which worked in conjunction with the University of Tasmania for a number of years, receiving a grant through the university, which had a Director of Tutorial Classes. Later, the grant was paid direct to the Association by the Government and the university's tutorial department ceased to exist. The Adult Education Board, established under the *Adult Education Act* of 1948, organizes classes of ten weeks' duration on a wide range of subjects. In 1961, 485 courses were held with a total enrolment of 5,199. The Board sponsors special lectures, film screenings and art exhibitions, recitals of music, and dramatic performances in both city and country areas. Its income is derived from a State Government grant and from students' fees.

The executive officer of the Board, located at Hobart, is the Director of Adult Education. Activities are organized on a regional basis by organizers based in Hobart, Launceston and three large country centres.

### § 13. Oversea Students in Australian Educational Institutions

The development of closer ties in education between Australia and other countries, and the demand for education in many countries in Asia, Africa and the Pacific has brought about a remarkable growth in the number of overseas students who come to Australia to further their education. Part of the growth and much of the awareness of the facilities available may be attributed directly to the schemes mentioned in § 11, para. 3. Since 1955, overseas students in Australia have increased from 3,500 to about 12,000 in 1962. Some attend institutions of higher education such as universities and technical colleges, and Australian qualifications are receiving increasing acceptance and recognition as students return home on the completion of their courses. Between 1955 and 1962, the numbers in institutions of higher education have risen from about 1,500 to 5,600, most of whom came from Asian countries. Australian institutions have shown a readiness to accept overseas students, and in many cases special provisions have been made to suit their needs. Nevertheless, population growth and the demand for education, especially for higher education, within Australia have forced many institutions to restrict the admission of overseas students in common with Australian students.

### § 14. Organizations Associated with Education

1. **Australian Council for Educational Research.**—The Australian Council for Educational Research, a non-governmental body, is engaged on educational research in a wide variety of fields, ranging from tertiary to pre-school education. It conducts surveys and inquiries, makes grants to approved educational investigators, serves as a centre for disseminating educational information, provides training for research workers, and standardizes and distributes educational and psychological tests for use in Australia. Although this council is an autonomous body, the Commonwealth and State governments contribute substantial financial support.

2. **The New Education Fellowship.**—The New Education Fellowship is a world organization of parents, educators, and other citizens interested in the development of new educational practices. It was founded in London in 1915 and spread to Australia at the time of a regional conference held here in 1937. There are now sections in each State. Its Australia-wide journal *New Horizons in Education* is published quarterly. A major conference of the New Education Fellowship was held in Australia in 1962, during which prominent educationists from Australia and overseas met in all States.

3. **Australian College of Education.**—The Australian College of Education was formed in 1959. Its aim is to bring together leading teachers and administrators in every field of education, to raise the standard of the profession of education in Australia, to establish and proclaim fundamental educational values, and to recognize outstanding contributions to educational practice. Chapters of the College have been set up in all States, and several of the addresses and papers delivered at meetings of the College have been issued in published form.

4. **Parent and Citizen Organizations.**—In Australia, where all government schools are administered by central departments, there is limited opportunity for local administration of education. Public interest is expressed through parents' committees or organizations of parents and other citizens interested in supporting their local school. The Education Acts of all States provide for the formation of groups of this type, whose aims are to promote the interest of the school by bringing parents, pupils and teaching staff together, to help provide supplementary teaching aids and recreation materials, to foster the regular attendance of children at school, and to help find accommodation for teachers.

In several States, the general maintenance of school buildings, equipment and grounds is a statutory responsibility of the parent groups, costs being covered by government grants. Lunch canteen services at local schools are maintained by groups in some States.

A notable achievement of the parent groups has been the establishment of school children's insurance schemes, operated through State government insurance offices or private insurance companies. These schemes cover accidents to children which occur between the time of leaving home for school and returning home by the usual direct route.

State-wide councils or federations of parents' groups are associated in a federal body, the Australian Council of School Organizations.

## CULTURAL ACTIVITIES

### § 1. Libraries

1. **General.**—The Munn-Pitt report of 1935 greatly stimulated interest in libraries and librarianship throughout Australia. This is seen in the rapid development of libraries, the passing of legislation in all States to increase library services, and the establishment in 1937 of the Australian Institute of Librarians to improve the standard of librarianship. This body was reconstituted in 1949 as the Library Association of Australia, and its functions now include the promotion and improvement of libraries and library services. The Association conducts annual examinations for which students are prepared by courses of instruction in all States. Formal library schools exist in the Commonwealth National Library, Canberra, and the Public Libraries at Sydney and Melbourne. In 1960, the first library school to be attached to an Australian University was opened. This is in the University of New South Wales.

2. **Commonwealth.**—(i) *National Library of Australia.* This Library grew directly from the Library of the Commonwealth Parliament established in Melbourne in 1901, the Committee of which soon afterwards announced its intention to develop a library patterned on the Library of Congress at Washington, U.S.A., capable of serving purposes beyond those essential to the Parliament itself, appropriate to a national library and on a national scale. This policy was steadily pursued, so that, in addition to its primary function of serving Parliament, it gradually became a central source of information for the Government and its departments and other agencies, and assumed increasing reference and bibliographical responsibilities in relation to scholarship and research in Australia and abroad. It was also influenced by the basic elements of the national library concept of the older countries of Europe: namely, that a national library is the proper place to collect the national literature systematically and to make it known and available for use, and that it is a place to which scholars may turn for what is most significant in the literature of other countries. For these growing extra-Parliamentary activities, the Parliamentary Library Committee, in 1923, adopted the title of Commonwealth National Library.

A committee appointed to examine the future control and functions of the Commonwealth National Library recommended, in 1957, its establishment as the National Library of Australia, separate from the Parliamentary Library, with wide functions and controlled by a board subject to a Minister; the transfer, as a separate agency to an appropriate department, of its Archives Division, which constituted the Commonwealth's agency for the custody and organization of departmental records of permanent value which need no

longer be held within departmental offices; and that the Parliamentary Library be a separate library under separate Parliamentary control. Continuing co-operation, where possible, between the two libraries was also proposed.

Effect was given to these recommendations by the *National Library Act 1960*, which created the National Library of Australia as a body corporate under the control of a Council of nine members, of whom one is a Senator elected by the Senate, one a member of the House of Representatives elected by that House, and seven appointed by the Governor-General. Its functions are:—to maintain and develop a national collection of library material, including a comprehensive collection relating to Australia and the Australian people; to make the national collection available to such persons and institutions in such manner and subject to such conditions as the Council determines with a view to its most advantageous use in the national interest; to make available such other services in relation to library matters and material, including bibliographical services, as the Council thinks fit, and in particular for the purposes of the library of the Parliament, the Departments and authorities of the Commonwealth, and the Territories of the Commonwealth; and to co-operate in library matters (including the advancement of library science) with authorities or persons, whether in Australia or elsewhere.

The National Library comprehensively collects and preserves Australian books, periodicals, newspapers, government publications, pictures, prints, manuscripts, maps, moving picture films and sound recordings. In this, it has been assisted by the deposit provisions of the *Copyright Act 1912-1950*, and has also been enriched by the acquisition of such notable collections as the Petherick collection of 16,500 items in 1911, the Cook manuscripts in 1923, the Cumpston collection on Public Health in Australia in 1936, the Mathews Ornithological collection in 1940, the Nan Kivell collection of 16,000 items of Australian and Pacific interest including original paintings, prints, manuscripts and printed material in 1959, and the Ferguson Sociological collection which is still under transfer. A feature of the Library's Australian work is the copying on microfilm, in association with the Public Library of New South Wales, of all important unique material overseas relating to Australia, including over three million pages in the Public Record Office in London.

The Library maintains a permanent exhibition of selected paintings, prints and other historical material from its collections. This exhibition is displayed in Parliament House, Canberra.

The Library publicizes Australian publications, both at home and abroad, through select lists which include *Australian Books* (annual), and *Australian Public Affairs Information Services* (a monthly subject index with an annual cumulation), and by collections of Australian books maintained by it at all posts at which Australia is officially represented abroad. In London and New York, the National Library maintains and staffs Australian Reference Libraries supervised by its own Liaison Officers in those centres.

In the discharge of its wider bibliographical responsibilities, the Library publishes the *Australian National Bibliography* (monthly with an annual cumulation), which lists books, pamphlets, maps, prints, sheet music, government publications, the first issue of each new periodical or newspaper, and moving picture films produced in or relating to Australia. Commonwealth and State official documents, both monographic and serial, are listed in *Australian Government Publications* (annual). The Library is also building up a union catalogue of serials in the social sciences and humanities, and of monographs in Australian libraries.

In 1956, the Australian Bibliographical Centre was established within the National Library to serve as the secretariat of the Australian Advisory Council on Bibliographical Services. The Council, made up of representatives of the National Library, State libraries and library boards, the Commonwealth Scientific and Industrial Research Organization, each of the universities, and the Library Association of Australia, plans the further development and co-ordination of bibliographical services and co-operates with UNESCO and the International Advisory Committee of Bibliography. The Centre organizes bibliographical projects recommended by the Council, and operates as a centre for bibliographical information in Australia and overseas. It has published a *Union List of Newspapers in Australian Libraries*; Part 1: *Newspapers published outside Australia* (1959); and Part 2: *Newspapers published in Australia* (1960).

The Library acts as a central library of documentary and educational films, its film collection containing over 6,000 titles, together with Australian historical films and a great number of film strips. It published *Australian Films: a Catalogue of Scientific, Educational and Cultural Films*, 1940-58 in 1959 and annual supplements in succeeding years. A revised edition of the *Catalogue of 16-mm. Films*, which lists all films available for loan, was also published in 1960 and has been supplemented by annual accession lists. Special efforts are being made to discover and preserve samples of early Australian film production.

Through its Extension Division, the Library conducts the Canberra Public Library Service for residents of the Australian Capital Territory, to whom 692,000 books were loaned during 1961-62. It also assists in the provision of similar services in the Northern Territory, the Territory of Papua and New Guinea, and Norfolk Island.

The National Library's collections contain approximately 729,000 volumes, 32,000 pictures, prints, drawings and other graphic materials, one million feet of microfilm, 65,000 maps, and nine million feet of moving picture films. Special features of the book collection are its strong holdings of Australiana, materials relating to the Pacific area and east and south-east Asia, the publication of foreign governments and international organizations, and works in the social sciences, particularly in political theory and economics.

(ii) *Patent Office Library.* The Library of the Commonwealth Patent Office, Canberra, contains approximately 9,000 books and a wide variety of periodicals and other literature relating to pure and applied science, industrial technology and the industrial property (patent, trade mark, design and copyright) laws and practice of most countries. Patent specifications of inventions are received from the principal countries of the world; present holdings are more than 7,000,000. Indexes include a microfilm of a classified index to 3,000,000 U.S.A. patents and translations of abstracts of U.S.S.R. patents.

(iii) *The Commonwealth Archives Office.* In 1943, following a report by an Inter-departmental Committee, the Prime Minister directed the formation of a War Archives Committee to arrange for the preservation of war records. This Committee recognized that war archives could not be separated from peace-time archives and in 1946 the name was changed to the Commonwealth Archives Committee. In 1952, the National Library became the sole Archival Authority for the Commonwealth and the Chief Archives Officer became the Executive Officer for the Committee. In March, 1961, in accordance with a recommendation of the National Library Inquiry Committee, the Archives Division of the National Library was re-constituted as the Commonwealth Archives Office within the Prime Minister's Department.

The Archives Office is primarily a central agency for the control of those records created by the Commonwealth Government which are no longer required for frequent use in the day-to-day business of government. This function is carried out through the following three basic activities.

*Control of Destruction.* No Commonwealth records may be destroyed without the concurrence of the Chief Archivist whose responsibility it is to safeguard reference interests other than those of the department which compiled the records. This concurrence is given as far as practicable through continuing disposal authorities which enable Commonwealth departments to destroy certain routine classes of records automatically, but records not covered by such continuing authorities are checked before destruction is authorized.

*Provision of Accommodation.* Any records which are no longer in active use but which are considered, either by the originating department or by the Archives Office, to warrant preservation, either permanently or for a further period, may be transferred to an archives repository. While in archival custody, they are arranged and described so that the best use can be made of them.

*Provision of Information.* Records in the custody of the Archives Office are available for use by the depositing and other departments of the Commonwealth Public Service. The Office also provides departments with a service for the provision of information from the records in its custody.

As a complementary function, the Office also provides a service to persons engaged in academic and other forms of research. The headquarters of the Commonwealth Archives Office is in Canberra, for the time being in the National Library Annexe. There are also branches in Sydney, Melbourne, Brisbane, Adelaide and Perth.

(iv) *Commonwealth Scientific and Industrial Research Organization.* The library holdings of the Organization cover the pure and applied sciences. In addition to the Head Office Library in East Melbourne, each of the Divisions and Sections has a specialized collection covering such subjects as food preservation, forest products, chemistry, physics, animal health and fisheries. The collections are particularly strong in the publications of overseas scientific and technical research institutions, with many of which extensive exchange arrangements have been made.

The Head Office library maintains a union catalogue of the holdings of all C.S.I.R.O. libraries, and is responsible for the following publications:—*Scientific Serials in Australian Libraries*; *Australian Science Index*, an index of articles published in Australian scientific and technical periodicals; and *C.S.I.R.O. Abstracts*, which include abstracts of papers published by C.S.I.R.O. officers, C.S.I.R.O. translations, translations available from other Australian organizations and additions to the British Commonwealth Index of Scientific Translations.

The larger libraries in the Organization have photocopying facilities which, while normally for internal use, will provide a service for the public when a publication is not held elsewhere in Australia.

(v) *The Australian War Memorial Library.* In the War Memorial library are housed the documentary and pictorial records of Australia's fighting services in the 1914–18 and 1939–45 Wars, together with collections covering the war in Korea, 1950–53, and earlier wars in which Australian troops participated—Sudan, 1885; South Africa, 1899–1902; and the Boxer Rebellion in China, 1900–01. Books, periodicals and other records covering contemporary trends and events in the fields of military history and military science are constantly being added.

The printed records section contains approximately 65,000 volumes, a large collection of military maps, newscuttings and newspapers, sound recordings of war leaders, personalities and events, war posters and postage stamps. Many personal collections by distinguished soldiers and historical documents relating to the wars have also been placed in the Memorial's custody for preservation.

Written records comprise correspondence files of headquarters and units of both World Wars, and the original war diaries compiled from day to day by each unit during its service.

The collection of official war photographs covering the 1914–18, 1939–45, and Korean Wars numbers over 250,000, and a collection of official motion picture film depicts Australia at war.

Facilities for public research are not yet fully developed, but requests for information are met where practicable.

(vi) *Other Commonwealth Government Libraries.* Most Commonwealth authorities have specialized collections in their own fields, and in addition draw largely on the National Library.

(vii) *Northern Territory Library Service.* The Northern Territory Library Service maintains four centres in the Territory. At 30th June, 1962, stocks totalled 46,057 volumes which were held at the following centres:—Darwin, 24,480; Alice Springs, 14,578; Tennant Creek, 3,908; Katherine, 3,091.

3. *States (Other than University Libraries, for which see p. 767).—(i) State Public Libraries.* In each of the capital cities, there is a well-equipped public library, the libraries in Melbourne and Sydney especially comparing very favourably with similar institutions elsewhere in the world. The following statement gives the number of volumes in the public library of each capital city at 30th June, 1961. Later figures for some of the libraries are given in the text relating to the respective libraries.

## STATE PUBLIC LIBRARIES, 30th JUNE, 1961

City	Number of volumes in—			Total
	Reference branch	Ordinary lending branch	Country lending branch	
Sydney .. .. .	(a) 601,053	..	(b) 110,000	711,053
Melbourne .. .. .	678,555	120,046	46,319	844,920
Brisbane .. .. .	144,442	..	68,971	213,413
Adelaide .. .. .	199,095	(c) 75,540	125,471	400,106
Perth(d) .. .. .	191,039	(e) 222,201	..	413,240
Hobart .. .. .	81,814	(f) 148,371	139,401	369,586

(a) Includes 172,820 volumes in the Mitchell Library and 16,083 volumes in the Dixon Library.  
 (b) Includes 1,943 volumes in the model school library.  
 (c) Includes 26,930 volumes in the children's branch and 10,464 volumes in the youth lending branch.  
 (d) Figures for Library Board of Western Australia; separate details for Perth are not available.  
 (e) Public libraries and circulation stock.  
 (f) Includes 120,492 volumes in the children's branch.

(ii) *New South Wales.* The Free Library movement in New South Wales, founded for the establishment of a system of public libraries on the basis suggested in the Munn-Pitt Report of 1935, helped to pave the way for the *Library Act* 1939, which was fully proclaimed as from 1st January, 1944. Of the 175 councils which have adopted the *Library Act*, 159 have put their adoption into effect. During 1961-62, they spent on their libraries £1,415,917, including £407,339 received in subsidy. There are 205 libraries, of which 58 are in the metropolitan area and 147 in the country. There are also 16 bookmobiles, of which two are in Sydney, seven in the suburbs of Sydney and seven in country municipalities and shires. These libraries contain 2,402,940 volumes.

New South Wales departmental libraries are staffed by officers attached for duty from the State Library, which also provides a central cataloguing service for municipal and shire libraries constituted under the 1939-1959 Act. The State Library maintains an adult education section servicing adult education activities for the universities of Sydney and New England and the Workers' Educational Association.

The Country Circulation Department forwards books on loan to State schools, to municipal and shire libraries and to individual students. During 1961-62, 100,376 books were lent to small State schools, and 2,416 to country libraries, while 48,156 reference works were lent to individual country students and to libraries to satisfy special requests.

The State Library, known as the Public Library of New South Wales, includes a general reference department of 426,080 volumes, together with the Shakespeare Tercentenary Memorial Library, and the Mitchell and Dixon Libraries and Galleries which are mainly devoted to Australian and Pacific material. The Mitchell Library, of more than 60,000 volumes and pamphlets and 300 paintings, was bequeathed to the trustees of the Public Library in 1907 by Mr. D. S. Mitchell, together with an endowment of £70,000. There are now 179,776 volumes in the library, in addition to valuable manuscripts, maps and other material. In 1929, Sir William Dixon gave a collection of historical pictures then valued at £25,000. These were subsequently added to, and at his death in 1952 Sir William bequeathed the whole of his collection of books, manuscripts, pictures and other material, together with an endowment of more than £113,000, mainly for the printing or reprinting of historical documents relating to Australia and the Pacific.

The total number of volumes in the State Library now exceeds 730,000, apart from manuscripts, historical pictures and other material.

The maintenance and control of the ordinary lending branch of the Public Library were transferred in 1908 to the Sydney Municipal Council to become the City of Sydney Public Library.

The State Library, which had previously been the repository for State archives, transferred this responsibility to an Archives Authority in June, 1961. The Authority consists of nine members, one of whom the Trustees of the Public Library have a right to nominate.

Other important libraries in New South Wales are:—the Sydney Public Library, 211,782 volumes; Teachers' Colleges, 210,181; Railway Institute, 165,141; Technical Education Branch, 93,392; Government Transport Institute, 36,770; Australian Museum, 33,336; New South Wales Public School Teachers' Federation Library, 21,000; Workers' Educational Association, 13,579; and the Library at the National Herbarium, 10,120 volumes. At 30th June, 1962, the Parliamentary Library contained 142,187 volumes.

(iii) *Victoria*. Until the establishment of the Free Library Service Board in 1947, the only public library facilities available in Victoria (apart from those of the Public Library and one or two Metropolitan Municipal Libraries) were those offered by about 200 Mechanics' Institute Libraries situated in country areas all over the State. The Board's policy has been to replace these services with modern public libraries controlled by local Municipal Councils and subsidized by the Board. Since the Board's inception, 99 municipalities have established libraries. Of these, 23 are in the city and 76 in the country. An amount of £349,000 was paid to the Councils in library subsidy for the year 1961-62 and £698,000 was expended in municipal library services for the same year. More than 1,500,000 books are available to the communities in which libraries are established.

A feature of the services provided in the country is the number of co-operative or regional library groups now being developed. These services, of which there are fifteen, comprising a total of 59 councils, consist of groups of councils which pool their financial resources, book-stocks and trained staff, in order to provide more comprehensive, efficient library facilities. Approximately 140 Mechanics' Institute Libraries are still in existence in country areas. In 1961-62, 45 of them shared a grant of £2,000.

The Public Library of Victoria was established in 1856. It is controlled by a board of seven trustees and receives its finance from the State Government. The reference collections now total about 680,000 volumes, and the lending library has another 170,000 volumes. In addition, the library files 2,500 current periodicals and 500 newspapers, in all about 35,000 volumes. Special collections include the J. K. Moir Collection of Australiana, the M. V. Anderson Chess Collection and the Green and Brodie Shipping Collections. The Victorian Historical Collection contains nearly 20,000 pictures, drawings, prints and objects of historical interest. The Archives Division is responsible for the preservation of government records.

(iv) *Queensland*. The Library Board of Queensland was established in 1945 under the provisions of the *Libraries Act* 1943. Its duty is to attain the fullest co-operation and improvement of the library facilities of the State, with the object of placing such facilities on a sound basis for the benefit and educational improvement of the citizens generally. The Board consists of eight members including the State Librarian as *ex officio* member and secretary. A general function of the Board is to ensure that the fullest co-operation exists with the Department of Education, the University of Queensland, local bodies, and other bodies having for their object the encouragement of education, literature and the arts and sciences. A specific function of the board is the control and management of the Public Library of Queensland. Its policy is to build up the main collection of the Library as the State's reference centre.

The Country Extension Service, which is administered as a department of the Public Library, lends books of non-fiction free to adults and children residing outside the metropolitan area and to municipal libraries in areas of low population.

The Oxley Memorial Library, established in 1923, has been administered as a department of the Public Library since 1946, and the collection has been kept separate. It contains books, manuscripts, pamphlets and other graphic material relating to the history and literature of Australia, and of Queensland in particular, and provides facilities for research students in Queensland literature and history.

In 1958, the section of the *Libraries Act* dealing with the preservation of public records was proclaimed, and in 1959 an Archives Section of the Public Library was instituted and an archivist appointed.

Since 1948, a course in librarianship has been held annually at the Public Library for the purpose of preparing trainees for the examinations of the Library Association of Australia, up to 1961 for its Preliminary Examination, from 1962 for subjects 1-3 of its re-organized



**Registration Examination.** In 1959, a course covering some compulsory subjects of the Association's Registration Examination was inaugurated at the Central Technical College, Brisbane.

The holdings of the Public Library of Queensland and its extension services in 1961-62 were:—main reference collection, 131,958 volumes and 7,230 maps and pamphlets; country extension service, 73,208 volumes; Oxley Memorial Library, 21,097 volumes and 10,123 maps, pamphlets and miscellaneous items.

Local authorities are empowered by the *Libraries Act* to establish and conduct library services as a function of local government. The Board encourages local authorities to use these powers. In 1961-62, 66 local authorities were conducting 102 library services. The Brisbane City Council has established 12 of these libraries. There were 80 libraries in Queensland free to adults.

To help overcome the problems of large area and sparse population, various local authorities provide library services on a regional basis. By 30th June, 1962, four regional library services had been established:—the South Western (seven shires), the Central Western (seven shires), the North Western (seven shires), and the Central Highlands (five shires), with head-quarters at Charleville, Barcaldine, Mt. Isa and Emerald respectively. Other regional services are being planned.

During 1961-62, the Board received a grant of £217,414 from consolidated revenue to finance the activities of the Public Library and to pay subsidies to local bodies of fifty per cent. on the purchase of books and the acquisition or improvement of library buildings and equipment. Subsidies were paid to four regional library service boards, 43 local authorities, 37 schools of arts and four other bodies.

The library of the Parliament of Queensland was established in 1860. At 30th June, 1962, the library held 90,677 books and pamphlets, consisting of official publications and books devoted largely to history, the social sciences, biography and literature.

The *Libraries Act Amendment Act* 1949 provides for the Public Library and the Parliamentary Library each to receive a copy of all books, pamphlets, maps and other printed material published in Queensland.

(v) *South Australia.* In the reference department of the Public Library of South Australia, there are about 207,000 volumes, most of which may be borrowed. Over 3,000 periodicals are filed, and the collection of newspapers includes every newspaper printed in South Australia. There are 40,000 volumes in the lending department available to persons living in the metropolitan area, and the country lending service has 153,000 volumes, of which more than half are suitable for children.

The Research Service specializes in scientific and technical inquiries, and supplements the resources of the Public Library by borrowing from other libraries and by obtaining microfilm copies of material not available locally. It has an extensive collection of trade catalogues.

The library of the Parliament of South Australia held approximately 65,000 volumes at 31st December, 1961.

There are eleven local public libraries in South Australia provided by eight local government authorities. The libraries are subsidized on a £1 for £1 basis by the State Government. The Library Board of South Australia, through the Public Library of South Australia, provides various central services. Book-stocks are pooled in the Public Library of South Australia and are interchanged between the libraries.

At the end of June, 1962, these local public libraries contained 59,000 books. There were 38,000 registered borrowers. In the year 1961-62, 584,000 books were lent.

(vi) *Western Australia.* In 1955, the Library Board of Western Australia was made responsible for all public library services throughout the State to which the State Government contributes funds.

The Board has the following major functions:—to encourage local authorities throughout the State to establish public libraries, and to provide as a State subsidy all books and bibliographical services necessary for such libraries when established; to administer the State Library; to advise the Government on all matters relating to libraries; and to provide for the training of librarians.

Local public libraries are subsidized on a £1 for £1 basis, the local authority providing accommodation and staffing, and the Board all books and related services. The Board provides at least one volume per head of the population. All non-fiction books may be made available at any public library throughout the State on request to the Board. All cataloguing is done by the Board. The first library under this scheme was opened in August, 1954. By 30th June, 1962, 60 libraries had been established.

The State Library, established in 1887, is the reference division of the Library Service of Western Australia. In addition to providing the normal facilities of a reference library for the metropolitan area, it extends its service throughout the State through local public libraries. It is divided into four subject departments as follows:—J. S. Battye Library of West Australian History; Library of Business, Science and Technology; Library of Social Sciences, Philosophy and Religion; Library of Literature and the Arts.

The State bibliographical centre is housed at the State Library and there is also a commercial information centre. The State archives are maintained by the State Library and managed by the staff of the Battye Library. The State Library is fully equipped with microfilm and photocopy apparatus.

The book-stock of the Board at 30th June, 1962, was approximately:—lending library services (including books in public libraries), 270,617 volumes; State Library, 197,144 bound volumes.

The University of Western Australia, through its Adult Education Board, manages the Adult Education Library of some 18,000 volumes of general reading and fiction. Books are sent to country readers each month.

There are some 100 special libraries in government departments and industrial firms. Union catalogues of periodicals and books received in the libraries in Western Australia are maintained by the Library Board of Western Australia in the bibliographical centre of the State Library.

(vii) *Tasmania*. The Tasmanian Library Board, constituted in 1944, is responsible for administering the State library headquarters in Hobart, for the extension of library services throughout the State, for the control of State aid to libraries and for the State Archives. The first stage of a new State Library headquarters building in Hobart was completed in 1962. The State Government provided £141,038 towards the cost of library services in 1961–62.

Municipal libraries are assisted with the purchase of books and participate in a book exchange scheme. In 1962, 45 municipalities took part in the service, leaving only four outside the scheme. In Hobart, the Board operates the Hobart Lending Library on behalf of the City Council. Two bookmobiles operate in Hobart and country districts, catering for areas without library premises, for children, old people's homes, etc.

The Board also operates a Reference Library in Hobart from which reference services are available to people throughout the State. There is also a documentary film library and a recorded music library. The Board arranges screenings of documentary films, recitals of recorded music, lectures, library weeks in country centres, puppetry demonstrations, etc.

The Parliamentary Library works in close collaboration with the State Library, which provides a reference officer to serve members during sessions.

**4. University Libraries.**—(i) *General*. These libraries provide material not only for the education of graduates and undergraduates, but also for research workers and practical investigators all over the continent. Much of the material they contain is not available elsewhere, for although in most cases smaller, they are in many directions more highly specialized than the public libraries. They lend to one another and to State and private institutions as well as to individual investigators. Each of them is governed by a librarian, who is responsible as a rule to an executive sub-committee and a committee which is practically co-extensive with the professorial staff.

The following table shows the volumes held, accessions during the year, and expenditure of the Australian university libraries.

## UNIVERSITY LIBRARIES, 1961

University				Volumes	Accessions during year	Expenditure
						£
Australian National University .. ..				251,719	21,766	124,119
Sydney .. ..				692,629	76,043	191,542
New South Wales .. ..				176,152	35,177	192,501
New England .. ..				115,403	12,650	63,158
Melbourne .. ..				300,366	19,032	202,204
Monash .. ..				28,000	18,000	174,000
Queensland(a) .. ..				236,993	24,954	126,129
Adelaide(a) .. ..				265,583	15,161	130,523
Western Australia(a) .. ..				193,484	14,510	88,643
Tasmania .. ..				134,000	8,203	62,617
Total .. ..				2,394,329	245,496	1,355,436

(a) Excludes pamphlets.

(ii) *Australian National University.* This library consists of two main collections; the former Australian National University Library, founded in 1948, which serves primarily the Institute of Advanced Studies, and the former Canberra University College library, founded in 1938, which serves primarily the School of General Studies. At the end of 1962, the stock comprised about 288,000 volumes including some 55,000 volumes in oriental languages. The collection serving the Institute of Advanced Studies specializes in the fields of the physical and medical sciences, excluding clinical works. In the social sciences, it aims to provide a good working collection while giving consideration to the holdings of the Commonwealth National Library. It possesses significant collections in anthropology, linguistics, mathematics and mathematical statistics. The collection serving the School of General Studies has been built up to meet the needs primarily of undergraduates studying arts, economics, law, oriental studies and science.

(iii) *University of Sydney.* The library consists of the central collection which is known as the Fisher Library, the Law Library, the Medical Branch Library, the Burkitt Library for pre-clinical medicine, and some fifty-two departmental libraries. The University Library, together with departmental libraries, held 776,548 volumes in December, 1962. Associated libraries in the University grounds bring the grand total to 1,028,483 volumes.

The first books were acquired in 1851, and shortly afterwards the library of Sydney College was added. The collection of Nichol D. Stenhouse was acquired in 1878 as the gift of Thomas Walker. In 1885, Thomas Fisher bequeathed the sum of £30,000, the income from which is used as a book fund. The Fisher Fund was matched in 1961 by establishment of the W. H. and Elizabeth M. Deane Library Fund. Perhaps the finest collection in extent and importance which has been given to the University is that of Sir Charles Nicholson. There have been numerous other benefactions, among which may be mentioned the library of Sir Francis Anderson, the W. H. Deane collection of books and manuscripts and the Dalley-Scarlett music library. In 1961, the University acquired the English literature collection of the late Hugh Macdonald. Sydney University Library has an extensive collection of mediaeval manuscripts and early printed books.

(iv) *University of New South Wales.* The libraries of this University consist of the Central Library at Kensington, and a Bio-medical Library at Kensington. There are also libraries at Newcastle and Wollongong University Colleges. The Broadway campus is serviced by the Sydney Technical College Library, where about 37,000 books from the University's library are placed. Service to university divisions at Broken Hill and Granville is also provided by the Department of Technical Education. In December, 1962, the university had approximately 232,600 volumes in its libraries and in Department of Technical Education libraries.

(v) *University of New England.* The Library was founded in 1938, when the New England University College was established. Sir William Dixon was its first benefactor. The library is now housed in a three-storied building, air-conditioned and containing all facilities. The library has approximately 120,000 volumes and receives 3,000 current periodical titles annually. The library is able to accommodate 200 readers and 278,000 volumes. A fourth floor is to be built later to house a further 120,000 volumes. The building also houses a bindery, photographic and archives division. The library has its own training officer and conducts formal courses in librarianship.

(vi) *University of Melbourne.* Early in 1854, the first allocation for books was made, but the library was housed in temporary quarters until 1959. The W. L. Baillieu Trust made available the first instalments of a £100,000 gift for building purposes, which have been followed by subsequent gifts and substantial grants from the Commonwealth and State governments, and a new building costing £700,000 was occupied at the beginning of 1959, the first in the University to be designed specifically for library purposes. It provides space for 1,300 readers and 300,000 books. During the academic year, admissions of readers to the building average 8,000 a day. Most of the books are accessible on open shelves, and though the library is intended primarily for reference purposes, borrowing, except of textbooks and certain valuable volumes, is made as easy as possible. The resources of the library are also used extensively on inter-library loan by industries and other organizations throughout Australia. The University Library, including 13 branch libraries in various departments, is administered from the centrally situated Baillieu Library, and at the end of 1962 it contained approximately 340,000 books and pamphlets. The large medical branch library is specially rich in periodicals.

(vii) *Monash University.* The library started to acquire books in 1960 and now has approximately 90,000 volumes and subscribes to 2,000 journals. It has been decided that the library organization will develop into four large units—the main library, a bio-medical library, a law library, and a library for physical sciences and engineering. The last named was occupied in January, 1962, but is functioning as the main library until that building is ready for occupation towards the end of 1963. The physical science and engineering library has been named the Hargrave Library after Lawrence Hargrave (1880–1915) and was officially opened on 15th December, 1962.

(viii) *University of Queensland.* The library was founded in 1911. The main library is in its own building in the University at St. Lucia, and there are a considerable number of departmental libraries. All books are open to access and most are available for borrowing. At 31st December, 1962, the library contained more than 289,000 volumes. Among the more important possessions of the library are its large holdings of periodicals, its geology collection, and its material relating to the history, development and culture of the countries surrounding the Pacific Ocean.

(ix) *Adelaide University.* This library bears the title of its original benefactor, Robert Barr Smith, who, with members of his family in and after 1892, gave the university over £50,000 for the library. Although readers have access to all parts of the library, the book collection is in two divisions, a collection of some 25,000 of the most frequently used books being kept in the main reading room, and the remainder, consisting of older or more specialized books, being shelved on the four levels of the extensions. Bound periodicals are shelved in steel stacks under the main reading room. Borrowing facilities are available to all matriculated students, to country students, and to graduates. There are branch libraries for medicine, law and music. The Australian Medical Association (S.A. Branch) and the Australian Physiotherapy Association (S.A. Branch) make annual contributions towards the maintenance of the medical library in return for borrowing privileges for their members. The Waite Agricultural Research Institute has a separately administered library of publications in agriculture.

(x) *University of Western Australia.* The first permanent library staff was appointed in 1927. Provision for a permanent library was not possible when the university moved to its present site, and space and facilities have consequently been inadequate. The first stage of the new library building, now under construction, is expected to be completed by October, 1963. The University Library developed very slowly in the early years, but recently has been adding about 12,000 volumes a year to its stock and making good earlier deficiencies. In addition to the Central Library, there are a number of departmental libraries of which the more important are engineering, agriculture, pre-clinical and law. There is also a medical library, in accommodation provided by the Royal Perth Hospital, for the use of the medical school.

(xi) *University of Tasmania*. Although this library was founded in 1893, a full-time librarian was appointed for the first time at the end of 1945. Since 1954, a Hobart Union List of Serials has been housed in and kept up to date by the University Library, thus providing a major reference tool for all bibliographic inquiries in the State. At the end of 1962, the library contained approximately 143,000 volumes. It receives 2,500 periodicals currently. The University Library also collects private and business archives and it has some important classical manuscripts as well as a collection of early printed books.

5. *Children's Libraries and School Libraries*.—(i) *New South Wales*. Children's libraries are being developed as departments of municipal and shire libraries. The Education Department maintains a school library service for the fostering of State school libraries, which are maintained partly by parents' and citizens' associations and partly by departmental subsidy. Secondary and central schools have trained teacher librarians.

(ii) *Victoria*. Under the auspices of the Free Library Service Board, 99 municipal children's libraries have been, or are being, established as part of the library services provided by the councils concerned. All these libraries provide comprehensive modern children's book collections which are constantly being augmented. An annual grant of £5,000, which is additional to the ordinary annual municipal library grant, is provided to assist these libraries. In addition, nine independently controlled children's libraries shared in this grant in 1961.

The Education Department is making provision for the building of library rooms in new schools. Where accommodation is available in existing schools, library furniture is provided free of cost to the schools and the government subsidizes the purchase of books. In June, 1961, 367 schools had central libraries.

A scheme of circulating libraries for small schools, particularly in remote areas, has been operating for some years. Two hundred and twenty-five schools benefited from this scheme in 1961.

The Department has a Library Service Officer with a small staff to advise and assist schools in the establishment and organization of libraries. A one-year course for the training of teacher-librarians was established at Melbourne Teachers' College in 1955. Approximately 25 teachers are trained each year.

(iii) *Queensland*. The Library Board of Queensland stresses to local bodies the importance of providing adequate library services for children. There are in Queensland 97 libraries free to children, of which 10 are conducted by the Brisbane City Council. The children's libraries at Rockhampton, Toowoomba, and Townsville are particularly active. Country children who are not catered for locally may borrow from the Country Extension Service which possesses a separate children's collection. The purchase of books in State school libraries in Queensland is financed by school committees and parents' associations, with a subsidy from the Department of Education on a £1 for £1 basis. Trainees at the Teachers' College are instructed in school library organization and management.

(iv) *South Australia*. A children's library of 27,000 volumes is used by school classes and individual children living in the metropolitan area. Except for works of reference, all books are available for loan. In August, 1957, a youth lending service was opened for young people from 13 to 18 years of age. It has a stock of 12,000 volumes.

(v) *Western Australia*. The Education Department provides library services and makes library subsidies and grants to schools. Advisory, central cataloguing and central repair and binding services are provided by the Library Services Section. The Teachers' Colleges provide courses in school library organization and management.

The Perth Technical College and Technical Schools are equipped with libraries, and an allocation for books is provided annually for each school and college department. A librarian at the College provides central ordering and cataloguing services throughout the Technical Division.

All high schools are provided with a library room and furniture, and trained teacher librarians are appointed to them. Building plans do not provide for primary school libraries, but a number of the schools have set up central libraries when rooms have become available.

One-teacher and two-teacher schools are served by the Charles Hadley Travelling Library and the Small Schools Fixed Library Schemes. Under the Fixed Library Scheme, grants are made once every three years to each school to provide additional books for the permanent libraries of reference books. The Hadley library provides recreational reading

and operates 350 boxes which are exchanged each school term in over 240 schools. Boxes are sent to small schools, mission schools and special classes. Finance is provided from a government grant and contributions from the participating schools of commission received from the Commonwealth Savings Bank.

Children in isolated areas who are unable to attend school are catered for by books sent out by the State Correspondence School's library. The children are kept in touch with the library by means of radio talks and leaflets issued periodically.

(vi) *Tasmania*. The Lady Clark Memorial Children's Libraries, at the State Library, Hobart, aim to serve all children in Tasmania. At 30th June, 1962, 180 children's libraries and depots had been established.

The Education Department provides library quarters in all high schools and in some of the larger primary schools. The purchase of books is financed by parents' associations and by departmental subsidies. Teacher-librarians are appointed in high schools. The Schools Library Service issues loan collections of books to schools and gives advice on the setting up of school libraries.

6. *Special Libraries*.—Before the 1939–45 War, the number of special libraries, apart from those maintained by government departments, was small, but during recent years many manufacturing, commercial, research and other firms, as well as statutory bodies, have found it necessary to establish special libraries to serve their staff. These libraries, which are most numerous in Sydney and Melbourne, are being administered increasingly by trained librarians.

7. *Microfilms*.—The following libraries supply microfilm or photostat copies of material usually at a small charge (the letter "P" signifies photostat supplied and "M" microfilm supplied):—*Australian Capital Territory*—Australian War Memorial (P), National Library of Australia (PM), C.S.I.R.O. (M), Australian National University (M), Patent Office (P); *New South Wales*—Metropolitan Water, Sewerage and Drainage Board (P), Public Library of New South Wales (M), Standards Association of Australia (P), School of Public Health and Tropical Medicine (M), Fisher Library, University of Sydney (PM); *Victoria*—Commonwealth Serum Laboratories (P), Technical Information Section, Munitions Supply Laboratories (PM), Public Library of Victoria (M), Standards Association of Australia (Melbourne Branch) (P), University of Melbourne (PM), C.S.I.R.O. (M); *Queensland*—Public Library (P); *South Australia*—Public Library of South Australia (PM), University of Adelaide (PM), Waite Agricultural Research Institute (P); *Western Australia*—State Library (PM); *Tasmania*—University of Tasmania (PM).

## § 2. Museums

1. *General*.—Museums have been established in all capital cities and in many provincial cities and towns. The most important are maintained by Government grants. Others are supported by municipal councils, the Universities, and private organizations or individuals. Many museums have art galleries which are housed in the same building. However, art galleries are described separately in § 3 below.

2. *Commonwealth*.—(i) *The Australian War Memorial, Canberra*. The Memorial comprises the national collection of war relics, and the building in which these are preserved. The building was opened in 1941. There is a collection of 4,000 art works, and a museum collection of more than 40,000 war relics, the gathering of which began on the battlefields of the 1914–18 War and was continued during the subsequent wars in which Australian Forces have participated. The collection has been enhanced by gifts of relics from the governments of Great Britain, the sister dominions, and of allied countries, and also by presentations made by ex-servicemen and relatives of those who died. The collection consists of items such as tanks, aeroplanes, submarines, field-guns and boats and through the widest possible range of war trophies down to the smallest items, nails, pieces of wire, wristlet watches and the like, each relic dependent for its value on its historical background. The works of art, all by Australian artists, depict battle scenes, individual officers and men, etc., and include oil and water colour paintings, drawings, statuary, bronzes, dioramas and mosaics. There is also a library, which is described in § 1, above.

(ii) *The Institute of Anatomy*. The museum of this institution is described in Chapter XVII. Public Health, p. 710.

3. *States.*—(i) *New South Wales.* The Australian Museum in Sydney, founded in 1836, is the oldest in Australia. It is incorporated under the control of trustees, and receives its finance from the State Government. Expenditure in 1960–61 was £219,995. The museum has very fine collections of Australian fauna, and important anthropological and mineral collections. The museum has a valuable library, which contained 33,500 volumes in 1961. The number of visitors to the institution during 1960–61 was 332,900, with average attendances of 837 on weekdays and 1,381 on Sundays. Courses of evening lectures are delivered and lecturers also visit suburbs and country centres. Gallery demonstrations are also given. Screenings of natural history films were attended by 11,085 persons in 1961. Day lectures are given for school children, and 15,202 children attended in 1960–61.

The Museum of Applied Arts and Sciences in Sydney is also financed by the State Government, and has collections illustrating manufacturing processes and natural products. The scientific staff conducts research work on the development of natural resources. There is a library of 9,000 volumes. Visitors number about 150,000 annually, and expenditure in 1960–61 was £72,462. There are branch technological museums at Goulburn, Bathurst and Broken Hill.

Representative collections illustrating the natural wealth of the country are displayed in the Agricultural and Forestry Museum controlled by the Department of Agriculture and in the Mining and Geological Museum controlled by the Department of Mines. The Mining Museum prepares collections of specimens for use as teaching aids in country schools. The National Herbarium and Botanical Museum is situated at the Sydney Botanic Gardens.

Three museums at the Sydney University are open to the public; these are the Nicholson Museum of Antiquities, the Macleay Museum of Natural History, and the Haswell Zoological Museum. The University also has a Museum of Morbid Anatomy.

Among historic homes which have been converted to historical museums is Vaucluse House, Sydney, the home of W. C. Wentworth.

(ii) *Victoria.* The National Museum of Victoria, Melbourne, was founded in 1854. It is devoted to natural history, geology and ethnology, and there are special Australian collections of birds, butterflies, molluscs and ethnology.

The Institute of Applied Science was founded in 1870 and has been enlarged recently by the addition of three new floors. Exhibits cover applied and economic aspects of all branches of science, with emphasis on recent scientific developments. A planetarium, to seat 116, was delivered in 1962.

There is a fine Museum of Botany and Plant Products in the Melbourne Botanic Gardens and a Geological Museum controlled by the Mines Department. Well-equipped museums of mining and geological specimens have also been established at Schools of Mines in several country towns.

Small museums are associated with art galleries in Castlemaine, Warrnambool, Mildura and Beechworth, in each case conducted by the local Council. There are a few private museums in country areas. Several historic homes of the 19th century are also maintained and exhibited to the public.

(iii) *Queensland.* The Queensland Museum, founded in 1855, is the State museum of natural science. It is a Government sub-department and is maintained by the State. The collections comprise extensive exhibited and reference series, mainly in the fields of zoology, geology and ethnology, and some mechanical and historical material is held with a view to future museum development. Lessons supported by film displays are arranged for the public, and an annual refresher course in natural science is conducted for teachers. The museum is now the recognized State depository for valuable material in natural science, and the collections are constantly being augmented. In addition, the Museum contains the outstanding library of the State in the fields of zoology, geology and anthropology. The annual number of visitors is about 200,000. Expenditure during 1960–61 was £41,637.

There is a Botanical Museum and Herbarium at the Brisbane Botanic Gardens, and the Royal Historical Society of Queensland has an historical museum at Newstead House, Brisbane, which has about 12,000 visitors each year. The University of Queensland has recently established an Anthropology Museum.

(iv) *South Australia.* The South Australian Museum has large collections of most branches of natural history and has especially rich collections of aboriginal artifacts. In 1961–62, there were at least 200,000 visitors and total expenditure was £63,335, met from State government grants.

In addition, there is a Municipal Museum possessing records and mementoes of the State and city, an Applied Science Museum with scientific and technological exhibits, and a Botanical Museum, situated in the Botanic Gardens, with a carpological collection and displays of economic plant products. Some town councils have special museums housing relics from earlier times of their districts, and several cottages once belonging to early pioneers have been restored as historical museums. These include Adam Lindsay Gordon's Cottage at Port MacDonnell and Captain Charles Sturt's Cottage, Grange.

(v) *Western Australia.* The Western Australian Museum was established in 1895. It is under the statutory management of a board of five members appointed by the State government, but operates under its own director and staff. Expenditure in 1960-61 was £63,357. It is primarily a museum of natural history, with active departments of vertebrate and invertebrate zoology, palaeontology, entomology, archaeology and anthropology. Principal research interests are in the fauna of Western Australia and the ethnology of the Western Australian aboriginal.

The Education Department of Western Australia provides a teacher to the Museum who instructs visiting classes and who is in charge of a Children's Centre during school holidays. Members of the Museum staff also take part in the teaching of undergraduates at the University of Western Australia.

There is also a Geological Museum at the School of Mines, Kalgoorlie.

The "Old Mill" Museum at South Perth, which exhibits historical objects of public interest including the old mill itself, is directed and maintained by a private business firm. A similar institution based on the Old Gaol at Toodyay is run by the local authority. Several other local bodies maintain small historical collections.

(vi) *Tasmania.* There are two main museums in Tasmania—the Tasmanian Museum in Hobart and the Queen Victoria Museum in Launceston. Both museums contain collections of botanical, mineral and miscellaneous exhibits, including valuable material illustrating the life of the now extinct Tasmanian aboriginal race. Fauna collections include many specimens of birds and marsupial animals not found in other parts of Australia. Art galleries are attached to each museum. State Government grants amounted to £32,500 in 1960-61. The Tasmanian Museum and Art Gallery is controlled by a board, which receives some assistance from the Hobart City Council, in addition to State Government grants. Expenditure in 1960-61 totalled £27,517. The Queen Victoria Museum and Art Gallery is controlled by the Launceston City Council, which met about half the total expenditure of £18,128 in 1960-61.

Several colonial houses have been converted into historical museums and there is also a privately owned museum near Burnie.

### § 3. Art Galleries

1. *New South Wales.*—The National Art Gallery of New South Wales originated in the Academy of Art founded in 1871, and is controlled by the State Government. At the end of 1961, its contents comprised 1,528 oil paintings, 979 water colours, 2,637 prints and drawings, 146 sculptures and casts, and 1,355 ceramics, works in metal, and miscellaneous. Since 1895, loan collections of pictures have been exhibited regularly in important country towns. Annual exhibitions include entries for the Archibald, Wynne and Sulman competitions. In 1960, 146 conducted lectures were given to 4,380 school children. The expenditure for 1961-62 was £66,305.

In 1959, a War Memorial Gallery of Fine Art was established at the University of Sydney.

2. *Victoria.*—At 30th June, 1961, the National Gallery in Melbourne contained 1,292 oil paintings, 8,066 objects of statuary, bronzes, ceramics, etc., and 9,204 water colour drawings, engravings and other prints. The gallery is situated in the same building as the museum and public library. Expenditure by the National Gallery in 1960-61 was £92,460, including £8,192 from government grants and legacies for purchases of works of art. Several bequests were made to the institution by private citizens. There are provincial art galleries at Ballarat, Bendigo, Castlemaine, Geelong, Hamilton, Mildura, Shepparton and Warrnambool, to which pictures are sent on loan from the National Gallery.

There are several small private art galleries in Melbourne. While some of these are commercial establishments, others exhibit the works of groups of artists or of individual artists. These works are generally for sale, but the purpose of the galleries is largely cultural. In addition, there is the annual *Herald* outdoor exhibition, an open-air exhibition of paintings and sculpture which is visited by many thousands of people each year.



3. **Queensland.**—The Queensland Art Gallery, maintained by the State government, was established in 1895. Expenditure totalled £10,936 in 1960–61 and there were 230,000 visitors. During 1959, the Government passed a new *Queensland Art Gallery Act* re-organizing the gallery, appointing a new Board of Trustees and granting a site for the building of a new art gallery. The collection has been enriched by numerous bequests. In 1959, an anonymous gift of £126,000 was devoted to the purchase of an important collection of modern French paintings. The collection as a whole comprises 669 oils and watercolours, 480 prints and drawings, 68 sculptures, and 206 art objects. During 1962, the first of what is hoped to be a regular series of travelling exhibitions to country districts was organized. In this case, the exhibition visited the coastal areas of northern Queensland.

The University of Queensland Fine Arts Committee controls the Darnell Collection, the result of a bequest by John Darnell who died in 1930. Income from the bequest is augmented by grants from the University Senate and is devoted to the purchase of works of art. The collection is exhibited at the University and includes 500 art books, 300 paintings in various media and some sculpture.

Two collections are exhibited at Toowoomba. The Gould collection, which includes paintings, pottery, ceramics, antique furniture and other art works, is displayed at the City Hall. The Sir Lionel Lindsay Art Gallery and Library was donated to the city by William Bolton and contains works of Australian artists and authors.

Other local authorities also maintain art galleries in provincial towns and there are several privately owned galleries.

4. **South Australia.**—The National Gallery in Adelaide originated in an exhibition of pictures in the public library building in 1881. Many bequests made by private citizens have materially assisted its growth. At 30th June, 1962, there were in the gallery 1,944 paintings in oil, water colours and pastels, 111 items of statuary, and large collections of drawings, prints, furniture, ceramics and coins. Special exhibitions are held from time to time. The expenditure during 1961–62 was £216,501. This included payments by the State from loan funds for alterations and additions to buildings amounting to £171,323.

Exhibitions of paintings are held regularly in private art galleries and are usually well-attended. In particular, the Royal South Australian Society of Arts presents five special exhibitions during the year, Spring, Autumn, Associate and Lay Members, Print and Drawing, and the Wholcan Prize Exhibition.

The Hahndorf Art Gallery was established in 1956, and since 1959 has operated in historic premises—the first Lutheran school built in Australia.

5. **Western Australia.**—The Western Australian Art Gallery was established in 1895. Although under the statutory management of a board of five members appointed by the State Government, it functions under its own director and staff. At 30th June, 1962, the collection included 400 oil paintings, 215 water colours, 10 pastels, 1,422 prints and drawings, 1,103 reproductions, 9 miniatures and 29 pieces of sculpture. International and interstate exhibitions are frequently held, and travelling exhibitions are sent to country centres.

There are no major private art galleries, but some municipalities maintain collections.

6. **Tasmania.**—In Tasmania, the Art Gallery in Hobart was opened in 1887. In June, 1962, it contained 236 oil paintings, 194 water colours, 127 black and white, 3 statuary and 105 etchings, engravings, etc.

The Art Gallery in Launceston was opened in 1891. In June, 1962, there were on view 250 oil paintings, 367 water colours, 144 black and white, and 258 miscellaneous exhibits.

Both galleries operate in conjunction with the museums in each city, occupy the same buildings, and are controlled by the museum authorities.

#### § 4. Botanical and Zoological Gardens\*

1. **New South Wales.**—The Zoological Gardens at Taronga Park, on the northern side of Sydney Harbour, were opened in 1916. The area is about 50 acres. The natural formation has been retained as far as practicable, with the object of displaying the animals in natural surroundings, and an aquarium has been built within the gardens. In 1960–61, admissions to the grounds were 828,698, and to the aquarium 291,408. The receipts of the

\* In addition to the zoological gardens referred to, there are numerous privately owned zoos and sanctuaries, many of them at tourist resorts, which maintain collections of Australian flora and fauna. There are also various national parks, forests, reserves, etc. dedicated for public use, which are preserved largely in their natural condition.

zoological department of the Taronga Park Trust amounted to £189,224 in 1960-61, excluding an annual State grant of £3,250, and expenditure amounted to £163,104. Exhibits at 30th June, 1961, comprised 925 mammals, 2,412 birds, 117 reptiles, and 1,036 fish.

The Sydney Botanic Gardens are situated on the shores of Farm Cove, Sydney Harbour, close to the heart of the city.

2. **Victoria.**—The main botanical gardens in the State are the Royal Botanic Gardens, an area of 88 acres situated within one mile of the centre of the City of Melbourne, and containing over 12,000 species of plants, of which there are some 30,000 individual specimens. Many species of native birds breed on islands in lakes within the gardens.

The Zoological Gardens are situated in Royal Park, and contain a wide selection of animals, birds and reptiles. Wild life sanctuaries are also maintained at Healesville and North Balwyn, and contain specimens of indigenous fauna.

3. **Queensland.**—Botanical gardens have been established in Brisbane and Rockhampton by the City Councils.

4. **South Australia.**—The Botanic Gardens, begun in 1854, occupy 45 acres planted with many tropical and sub-tropical trees, shrubs and plants.

The Zoological Gardens, opened in 1883, have an area of approximately 19 acres set among lawns and gardens and contain a fine collection of animals, reptiles and birds. There were 278,000 visitors in 1961.

5. **Western Australia.**—Arrangements have been made for the creation of a botanic garden for the native plants of Western Australia, in King's Park, a reserve of almost 1,000 acres close to the centre of Perth. A site of 25 acres has been selected for garden development during the first five years, and an arboretum of 35 acres for a collection of native trees has also been planned. Both areas have been surveyed in detail and the layout determined.

The Zoological Gardens which were opened in 1898 at South Perth have an area of 44 acres and are under the control of the Acclimatisation Committee. Animals, birds and reptiles are exhibited and sporting and recreational facilities are available to the public. During the year 1961-62, 137,614 adults and 117,680 children visited the zoo.

6. **Tasmania.**—The Hobart Botanical Gardens adjoin Government House on the Queen's Domain. The gardens contain a fine collection of exotic trees and shrubs and are controlled by a Board appointed by the State Government, which supports the gardens by annual grants.

There is no zoo in Tasmania, but a small collection of animals and birds is maintained by the Launceston City Council at the City Park.

7. **Northern Territory.**—The Darwin Botanical Gardens were established in 1873, and were planted with imported exotic plants and trees. The gardens now occupy 80 acres and feature tropical plants of both native and overseas origin. They are controlled by the Darwin City Council.

## § 5. Book Publishing

1. **Australian Book Publishing.**—Some statistics relating to Australian book publishing are compiled by the National Library of Australia as part of its bibliographical responsibilities (see p. 761). Through the deposit provisions of the *Copyright Act* 1912-1950, its overseas collection agents, and its own efforts, the library receives practically all Australian publications although not necessarily in the year of publication. Because the statistics compiled and shown hereunder are classified according to the year of publication, all figures are subject to revision as publications not yet received in the National Library come to hand.

For books published in 1961 and thereafter, the method of counting conforms with international practice. Each title is counted as one unit. The figures cover all non-periodical publications (i.e. those published at irregular intervals or regularly at intervals of one year or longer) published in Australia. They refer to all publications of five pages or more and include pamphlets, new translations and re-editions. They include government publications, educational textbooks, university theses, etc., but exclude publications not available to the general public, advertising material, publications of transitory interest, off-prints, musical works, children's picture books, maps and charts.

Figures for 1960 and previous years are less comprehensive, excluding most government publications and certain paper-backs.

2. **Number of Publications.**—The following table shows the number of books, etc., published in Australia and received by the National Library during the years 1958 to 1962. From 1958 to 1960 the figures are on the "old" basis of compilation and exclude most government publications.

**NUMBER OF PUBLICATIONS RECEIVED BY THE NATIONAL LIBRARY:  
AUSTRALIA**

Received by the National Library up to the end of—	Published during—				
	1958	1959	1960	1961	1962
1958 .. .. .	558	..	..	..	..
1959 .. .. .	680	580	..	..	..
1960 .. .. .	705	765	531	..	..
1961 .. .. .	720	814	839	1,840	..
1962 .. .. .	723	873	984	2,848	1,793

The next table shows the 1961 and 1962 publications received up to the end of 1962, classified by subject matter.

**NUMBER OF 1961 AND 1962 PUBLICATIONS RECEIVED BY THE NATIONAL LIBRARY, BY SUBJECT(a): AUSTRALIA, TO 1962**

Subject	Published during—	
	1961	1962
Bibliography, libraries, general .. .. .	93	46
Philosophy, psychology .. .. .	13	9
Religion .. .. .	122	67
Social sciences .. .. .	1,071	573
Philology .. .. .	12	5
Science .. .. .	189	107
Technology, business .. .. .	695	391
Art, Amusement .. .. .	133	73
Literature—		
Australian poetry .. .. .	32	16
Australian drama .. .. .	3	4
Australian fiction .. .. .	134	133
Australian essays .. .. .	2	1
Australian humour and miscellany .. .. .	16	20
Criticisms, anthologies, school editions .. .. .	63	121
Other literature .. .. .	27	32
<i>Total, Literature</i> .. .. .	277	327
Travel, biography, history .. .. .	243	195
<b>Grand Total</b> .. .. .	<b>2,848</b>	<b>1,793</b>

(a) The classification is based on the divisions of the Dewey Decimal Classification.

3. **The Commonwealth Literary Fund.**—In 1908, the Commonwealth Government, under Alfred Deakin, first established the Commonwealth Literary Fund. The Fund was entirely a compassionate one devoted to literary pensions for aged or infirm authors, for the families of literary men who died in poverty, and for writers who were unable for financial reasons to continue their activities.

In 1939, in an endeavour to encourage the development of Australian literature and to foster appreciation of it, the Commonwealth Government greatly enlarged the scope of the Fund. The Fund now awards Fellowships each year, assists in the publication of manuscripts of high literary merit, makes annual grants for lectures in Australian literature, and awards pensions to writers who have achieved a nation-wide reputation for their work in the field of creative literature.

The Fellowships are awarded each year to writers who have proved their capacity in the field of creative literature, to enable them to devote their time to working on a literary project they specify. A Fellowship carries a maximum value of £2,000 per annum. The Fund does not seek out people on whom to bestow Fellowships, but considers only those who submit applications. Applications close on 30th June each year and the awards are decided at the end of the year.

The Fund also assists in the publication of manuscripts which have outstanding literary merit, but which, in the opinion of publishers, may constitute a commercial risk. This assistance takes the form of a guarantee of assistance to the publisher. The Fund does not itself enter the field of publishing, nor does it make outright grants to authors to enable them to arrange publication personally.

Since 1940, annual grants for special lectures in Australian literature have been made to all universities. In 1956, the Fund initiated a scheme of lectures to the general public and to schools mainly in country areas, with the co-operation of State Adult Education authorities and Education Departments. Annual grants are now made to the States for this purpose.

The Fund also assists certain literary magazines of long standing and recognized literary value.

The Fund is administered by a Committee consisting of the Prime Minister (Chairman) the Leader of the Country Party, and the Leader of the Opposition in the House of Representatives. The Committee is advised on all literary matters by an Advisory Board of six persons with literary qualifications.

4. **The Literature Censorship Board.**—In 1937, the Commonwealth Government introduced legislation to provide for a Literature Censorship Board to advise the Minister for Customs and Excise on imported literature. At the same time, an Appeal Censor was appointed to afford appellants an avenue of appeal which did not make expensive court proceedings necessary. The Appeal Censor was replaced by an Appeal Board in 1960.

The Boards were set up to deal with that part of the problem which provides the greatest amount of controversy—restriction on books which have a real place in the field of literature. In practice, no imported publication having literary merit is prohibited without prior reference to the Literature Censorship Board. Should the Minister decide to prohibit the importation of a book on the recommendation of the Board, an appeal against the decision may be made for reference to the Literature Censorship Appeal Board. A decision to prohibit the importation of a book may be challenged through the normal processes of the law.

The Literature Censorship Board consists of a Chairman, a Deputy Chairman and two other members, while the Appeal Board is made up of a Chairman and two other members.

The foregoing refers to imported literature. Control of indigenous matter comes under the jurisdiction of the State governments.

## § 6. Film Production

1. **Australian Film Production.**—Australia was one of the pioneers in the history of film-making, a short story film, *John Vane, Bushranger*, having been made in 1904, only a year after America's *The Great Train Robbery* (1903), which is generally considered to be the first genuine story-film. It has been claimed that *The Kelly Gang*, made in 1905-6, was the first full-length feature film produced in the world.

Following the outbreak of the 1914-18 War, a series of short patriotic films were produced. In 1917, the first of a successful series of rural comedies was made, featuring a family called the Hayseeds. In the same year, *The Kelly Gang* was remade and the first film version of *For the Term of his Natural Life* appeared. A first film version of C. J. Dennis's *The Sentimental Bloke* was made in 1919.

The year 1920 was notable for a number of productions with an authentic Australian flavour:—*On our Selection*, a first version of *Robbery Under Arms*, another remake of *The Kelly Gang*, and C. J. Dennis's *Ginger Mick*. Production continued at about the same level until the coming of sound in 1928. Altogether, approximately 160 theatrical films were produced by Australian units in the silent period (1900-1930).

Lack of equipment hampered the commencement of production of sound films in Australia, but during the 1930's nearly 60 sound films were produced.

During the 1939-45 War, commercial film production combined with the Commonwealth Government in making films. Since the war, a number of British and American companies have made films in Australia. Altogether, between 1930 and 1960, about 115 feature films were produced in Australia.

**2. The Australian National Film Board.**—The Australian National Film Board was inaugurated in April, 1945, on the recommendation of a Commonwealth Government inter-departmental committee. It was attached, for administrative purposes, to the Department of Information. With the abolition of that Department in March, 1950, administration of the Board was transferred to the News and Information Bureau, Department of the Interior.

In November, 1950, the Board was reconstituted as an advisory body to the Minister for the Interior on matters concerned with the production, acquisition and distribution of films required by Commonwealth departments for use within Australia on important matters of national interest and welfare, such as school and adult education, rehabilitation, social development, international understanding, trade and tourist expansion, and immigration; and for dissemination abroad to expand trade and commerce with other countries, to encourage tourist traffic with Australia, to improve Australia's relations with other countries and, where necessary, to explain Australia's national policies and encourage immigration.

The constitution provides for a membership of eleven, with the Secretary of the Department of the Interior, Chairman, the Director of the News and Information Bureau, Deputy Chairman, and the remainder representative of Commonwealth departments, State Government instrumentalities, and organizations interested in the production, distribution or utilization of films for national publicity.

**3. The Film Division of the News and Information Bureau.**—The first Australian Government organization for the production of motion pictures for national publicity purposes was the Cinema and Photographic Branch of the Department of Commerce, set up in Melbourne in 1920. Early in the 1939-45 War, the newly-established Department of Information was made responsible for the operation of the Cinema Branch and for an Official War Photography Unit. Production and distribution of all films required by Commonwealth Departments are now undertaken by the staff of the Film Division, News and Information Bureau, Department of the Interior, or by commercial enterprises under the supervision of officers of the Film Division. Theatrical and television distribution in Australia, and both theatrical and non-theatrical distribution overseas, of all Film Division productions are organized by the News and Information Bureau's home office or its overseas representatives. Non-theatrical distribution in Australia is organized through the National Library, Canberra, in co-operation with State film distribution agencies.

Since 1946, the Film Division has produced 409 films for general exhibition, as well as training and special purpose films. Prints are dispatched to 50 overseas centres, where distribution is arranged by News and Information Bureau officers or other Australian representatives. In Britain, there is regular distribution through more than a thousand theatres and a large non-theatrical and educational series of circuits. By arrangement with the British Broadcasting Corporation, items of topical interest photographed by the Film Division are flown to London for television. In the United States of America, there is wide non-theatrical distribution and considerable use of the films by television networks. An exchange arrangement with the National Film Board of Canada secures extensive distribution in Canada. Selected films have been recorded in French, Dutch, German, Italian, Japanese, Malay, Thai, Hindustani, Tamil and other Indian dialects.

In addition to films made on the initiative of the News and Information Bureau, the Film Division produces films under the sponsorship of, or with the co-operation of, Commonwealth Departments and many other bodies such as the Commonwealth Bank of Australia, the Road Safety Council, the Overseas Telecommunications Commission, the Snowy Mountains Hydro-electric Authority, the Australian Wine Board, the Australian National University, and the Australian Broadcasting Commission.

The Australian motion picture industry co-operates with the Commonwealth, and special films for urgent national appeals are planned, produced and distributed with the assistance of the National Film Council of the motion picture industry and its Film Production Advisory Committee.

**4. The Film Censorship Board.**—(i) *Legislation.* The Commonwealth Government's powers over censorship of films extend only to imported films and imported advertising matter and stem from the *Customs Act*. Under that Act, the Customs (Cinematograph Films) Regulations provide for the appointment of a Film Censorship Board whose function is to ensure that films and related advertising material coming within certain defined categories are not admitted into Australia. Under those regulations, the Film Censorship Board may pass films in their original form, reject them, or pass them after eliminations have been made. Legislation passed by the State Governments of Victoria, Queensland, Western Australia and Tasmania names the Commonwealth Film Censorship Board as the censorship authority and vests in it the power to classify films as suitable for general exhibition or otherwise. The State Acts give the Commonwealth Board the authority to censor films made in Australia for commercial exhibition and advertising matter made in Australia.

The Censorship organization comprises a Censorship Board of seven persons and an Appeal Censor, the headquarters being in Sydney. Importers have a right of appeal to the Minister against decisions of the Board and the Appeal Censor.

(ii) *Import of films.* (a) *35mm. Films for Exhibition in Motion Picture Theatres.* In 1962, 1,243 films comprising approximately 4.5 million feet were censored. This represents approximately 835 hours' screening time. Of these films, 447 originated in the United States of America, 424 in the United Kingdom and 372 in other countries. The principal suppliers among the last mentioned were:—U.S.S.R., 75; France, 67; Greece, 49; Italy, 41; and Germany, 16. Included in these figures are 440 full-length feature films which constitute the main theatrical attractions. This was a decrease of 10 compared with the imports for 1961. Feature films came from:—the United States of America 159, the United Kingdom 95, U.S.S.R. and Greece 40 each, Italy 31, France 24 and Germany 9. Ten feature films were rejected and cuts were made from 131. There were eight appeals, seven against rejection and one against cuts. One was allowed and seven disallowed. Feature films classified as suitable for general exhibition numbered 252 and 188 were not suitable for children. Of the latter, 23 carried the special condition that all advertising should indicate that they are suitable only for adults. These classifications are advisory only and are designed to enable picture-goers and particularly parents to obtain a general idea of the nature of any particular film. In addition to these imported films, 184 35mm. films of 162,775 feet produced in Australia were cleared. These were mainly newsreels and documentaries intended for commercial exhibition or export.

(b) *16mm. Films.* Excluding those imported for television use, 5,878 16mm. films of approximately 4 million feet were examined. There were no rejections. These were films commercially produced for screening in theatres used by business undertakings for advertising and instructional purposes and for screening in churches, schools and universities, and on home movies.

(c) *8mm. and 9.5mm. Films.* Approximately 47,000 feet of these small dimension type films were examined.

(d) *Television Films.* 7,399 films, predominantly 16mm., of approximately 8.5 million feet, for use on television, were censored. The number of films is not a true indication of volume because many of these were of short duration. In terms of screening time, the films censored for television amounted to approximately 4,000 hours. On a footage basis, the United States of America supplied approximately 80 per cent. of the total imports and the United Kingdom 16 per cent. Eleven television films were rejected outright and an additional eleven were classified as unsuitable for televising. Eliminations were made from 939. There were two appeals against classification, one of which was allowed and one disallowed, and one appeal against rejection which was allowed.

(e) *Foreign Language Films.* Countries other than the United Kingdom and the United States of America supplied 372 of the 35mm. films imported for theatrical exhibition. Of these, 186 were feature films. Generally, the dialogue is in a foreign language with explanatory English captions. A few have an English commentary, and in some cases English "dubbed" dialogue. Of 5,878 16mm. commercial films censored, 1,092 originated from non-English-speaking countries. The chief supplying countries were Germany 214, Japan 124, France 120, Malaya 84, Italy 64, Holland 55, Czechoslovakia 48, India 48, Switzerland 45 and U.S.S.R. 41.

(iii) *Export of Films.* The quantity of films exported for the year was approximately 2.5 million feet, consisting mainly of newsreels, advertising films and documentaries. This footage included in many cases several prints of the one film. It also included large quantities of exposed negatives sent overseas for processing.

### § 7. The Arts Council of Australia

Patterned on the Council for the Encouragement of Music and Arts which operated in the United Kingdom during the Second World War, an Australian organization was brought into being in 1943. In 1945, it became The Arts Council of Australia. Originating in New South Wales, Divisions exist now in all States and the Australian Capital Territory. The centre of activity has been in New South Wales, which has a country branch network of over fifty centres. A Federal Council will become effective in 1963.

The Arts Council receives State government grants through the Departments of Education in New South Wales and Queensland. In 1963, for the first time, a substantial contribution was received from a private organization.

The New South Wales Division is a member of the Adult Education Advisory Committee in that State, representing the "live art" section of adult education. The Tasmanian Division is represented on, and works closely with, the Adult Education Board of that State.

In 1950, the New South Wales Division arranged and presented the world première of the ballet *Corroboree* and in 1951, in connexion with the celebrations of the Commonwealth Jubilee, the Federal Council arranged a tour to all States of the ballet, performed by the Victorian National Theatre Ballet Company. Seasons of *Let's Make An Opera* followed later in 1951 at Sydney, Brisbane, and Canberra.

Activities of the Arts Council are directed towards decentralization of the arts for the benefit of country centres and metropolitan and country schools. It is greatly concerned with taking the arts to children as a basic cultural development. Tours of high standard companies in opera, ballet, drama, puppets, etc., are operating throughout the year.

The Young Elizabethan Players Company was formed jointly by the Arts Council and the Australian Elizabethan Theatre Trust in 1958 to take Shakespeare to schools in New South Wales and Queensland, and is still operating.

The Council handles a wide range of art exhibitions, both for city and country areas. Summer schools for drama, painting, pottery, music and other arts are an established annual feature of the work of the New South Wales and Queensland Divisions.

Yearly drama festivals are conducted for the Little Theatre movement. For 1963, the New South Wales Division is sponsoring the first arts festival for Sydney (North Side Arts Festival), with a wide range of cultural activities concentrated on the north side of Sydney Harbour.

### § 8. The Australian Elizabethan Theatre Trust

Inaugurated in 1954 to commemorate the first visit to the Commonwealth of Her Majesty The Queen, the Australian Elizabethan Theatre Trust has since presented drama, opera and ballet throughout the entire Commonwealth. The Trust receives annual grants from the Federal Government, the State Governments and city councils. Its income also includes subscriptions from members.

In the field of drama it has presented, *inter alia*, the works of Australian playwrights, including plays which were subsequently presented overseas.

The Elizabethan Trust Opera Company has given seasons of opera and has presented overseas guest artists, conductors and producers. The Australian Ballet, which commenced its inaugural season in November, 1962, will visit all mainland capitals and New Zealand

during 1963. This company also features guest appearances by renowned overseas performers. The activities of the Trust in opera and ballet are providing employment for Australian singers, dancers, musicians, designers, choreographers and composers. The Trust has also been associated with commercial managements in the presentation of overseas attractions and large-scale musicals.

Country areas have been visited by Trust companies presenting opera, drama and puppets in association with the Council of Adult Education in Victoria and The Arts Council of Australia in New South Wales. During 1963, three companies of Young Elizabethan Players will again present Shakespeare for schools in five States. To date, almost one million children have attended a performance by these players which for many of them represents their introduction to "live" theatre.

In Victoria, the Trust is associated with the University of Melbourne in the Union Theatre Repertory Company, which presented its 120th production early this year. It is also associated with the University of New South Wales in the establishment recently of the Old Tote Theatre Company. Assistance is given to the Perth Playhouse, the Festival of Perth, the National Theatre and Fine Arts Society of Tasmania and other companies. The Trust has contributed productions to the biennial Adelaide Festival of Arts.

One of the most important activities undertaken by the Trust is its association with the University of New South Wales and the Australian Broadcasting Commission in the establishment and maintenance of the National Institute of Dramatic Art. This provides a training ground for young Australian actors, producers and technicians.

### SCIENTIFIC RESEARCH

NOTE.—This section outlines first the role and organization of scientific and technological research in Australia and then refers specifically to various organizations, etc., associated with scientific research. Particulars regarding Commonwealth medical research organizations are given in Chapter XVII. Public Health.

#### § 1. Science and Technology in Australia\*

1. General.—The reputation of Australian science in pre-war days rested on the individual accomplishments of a few famous men. Many of the most able Australian scientists were attracted to posts abroad where they received better facilities, better rewards and proper recognition.

During the last twenty years, this state of affairs has altered. Attractive conditions of employment have been created for scientists, and scientific research as a national undertaking has been greatly expanded. While Australian scientists continue to go abroad for experience, many have returned to establish careers in their own country. In addition, the rapidly growing reputation of Australian scientific work is attracting to the country a steady stream of scientific talent from overseas.

The pattern of training of scientists and technologists in Australia is very much the same as that of Britain. The universities have followed the example of the British universities in teaching applied science as well as pure science. This differs from the practice in Germany, Switzerland and other continental countries, where special technical schools are the major source of highly trained technologists and engineers. A few of the Australian senior technical colleges do, however, produce engineers and technologists of professional status. The universities are currently producing some 800 graduates in science each year, and about 450 in engineering. In addition, the graduate schools in the universities are growing rapidly. In 1949, seven people received the Ph.D. degree for post-graduate work in science, agriculture and engineering, but eleven years later, in 1960, over a hundred people received it. During the period 1957 to 1962, the number of students working for higher degrees nearly doubled.

2. Pattern of Research in Australia.—The major scientific research body in Australia is the Commonwealth Scientific and Industrial Research Organization set up by an Act of the Commonwealth Government. The Organization operates in most fields of interest to industry and agriculture, and has research laboratories in all capital cities and in many country areas.

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\* The following article was specially prepared for this issue of the Year Book by the Commonwealth Scientific and Industrial Research Organization of Australia.



A good deal of research is also carried out by the universities and individual industrial firms and a few co-operative research associations. In certain other specific fields, research is carried out by various State and Commonwealth government authorities.

At present, there are no private business organizations established primarily to conduct sponsored research for industry, but the C.S.I.R.O. and some university departments are prepared to undertake sponsored research.

In quality, the research achievements of the Australian research groups have been outstanding, and university research, until recently limited in scope and volume, is now expanding rapidly.

**3. Research in Industry.**—Relatively few firms are large enough to maintain research activities within their own organization, and not all firms strong enough to do so have chosen to set up research laboratories. In recent years, however, there have been many signs that managements of most large enterprises have come to realize the importance of research. Practically all large firms utilizing modern technologies now undertake research, and several of them invest heavily in research activities. Even some firms with very close affiliation with overseas organizations are setting up large research laboratories in Australia.

Among the smaller firms, however, little has so far been achieved. Efforts to organize co-operative research associations have not yet been very successful in Australia, partly because of the scale of industry and more particularly owing to the diffusion of the constituent units throughout the country's main industrialized areas. So far, five research associations have been established, dealing with baking, tobacco, minerals, wine-making, and coal industries. All receive financial support from the Commonwealth Government.

With certain provisos, money spent upon research by industry is deductible for income tax purposes.

**4. Research by State Authorities.**—State administrations are increasingly active in research. The greater part of this work is directed to rural industries, particularly regional problems of agriculture. State government extension services promote the application of research in rural industries. Applied research is also carried out by some of the State instrumentalities responsible for power and gas generation, water supply and sewage disposal.

**5. Research by Commonwealth Authorities.**—The Commonwealth concentrates a large part of its scientific research effort in the Commonwealth Scientific and Industrial Research Organization (*see p. 784*).

C.S.I.R.O. has devoted part of its effort to basic research, and has achieved world leadership in certain fields. In applied research, some notable successes have been achieved. Particular attention has been directed to the potentialities of Australian raw materials, and to the improvement of the industrial processes concerned with processing these resources into finished products.

The basis has been provided for the establishment of a flourishing pulp and paper industry based upon indigenous hardwoods as raw material. Wool research, supported by a statutory contribution by the industry, has been able to show the way to notable advances in manufacturing techniques, and, in particular, new moth-proofing and shrink-proofing processes have been developed. Recent outstanding successes include processes for permanently pleating woollen fabrics and for endowing woollen fabrics with "wash-and-wear" properties.

The Mansfield process for the control of evaporation from free water surfaces is preventing the loss of many million acre-feet of water a year from open storages. For arid regions this is a most important advance. A new method of producing super-pure zirconium (a "new" metal used in nuclear reactors) was developed, and overseas patent rights were sold to an American corporation.

**6. Standards.**—Activities which are extremely important in maintaining industrial standards of performance are undertaken by the Standards Association of Australia and the National Association of Testing Authorities (*see also Chapter VI. Manufacturing Industry*). The functions are linked, in that whereas the Standards Association establishes and publishes standards, the Association of Testing Authorities works to ensure that the certified testing laboratories maintain their level of competence.

The Standards Association of Australia publishes standards of many kinds for the benefit of industry and commerce. It draws representative committees from its 2,500 members representing government departments, chambers of manufacture and commerce, professional associations, universities and other groups, which draft standard specifications,

codes and tests. The Association creates its own standards and endorses also certain British standards for Australian use with or without modification. So far it has issued about 1,000 standard specifications. It has nearly 500 more projects in hand.

The National Association of Testing Authorities is the recognized organization for the co-ordination of testing facilities. It is an independent body whose objective is the organization of a comprehensive testing service to meet the needs of government, industry and commerce by registration, on a voluntary basis, of testing laboratories throughout Australia. The technical work of the Association is performed by Registration Advisory Committees, each composed of experts in the field of testing entrusted to it. Members of the committees are appointed solely on the basis of specialist qualification and experience.

Laboratories may be registered for the performance of specified tests within such fields as metrology, mechanical testing, electrical testing, heat and temperature measurement, chemical testing, biological testing, and industrial radiography and crack detection.

In 1962, there were 373 laboratories registered with the Association, which had a further 100 applications for registration before it. Membership of the Association is open to all laboratories which conform to the standards of staff and laboratory practice required by the Association.

Laboratories registered by the Association are entitled to endorse test documents in the name of the Association. The Association reassesses its registered laboratories from time to time, and investigates discrepancies in results between the different laboratories.

**7. Oversea Affiliations.**—Australia follows Britain in its system of weights, measures and units. The Commonwealth Scientific and Industrial Research Organization is the custodian of the Australian national standards of measurement of the physical quantities. Under the Australian Constitution, regulation of trade practices involving weights and measures is a function of the States, but all measurements are ultimately referred back to the national standards.

Australia is a subscriber to most of the important international standards unions, including the International Bureau of Weights and Measures, the International Organization of Legal Metrology, the International Patents Union, and the International Trade Marks Union.

**8. Science and the Industrialist.**—The research agencies mentioned are all accessible to the industrialist and are willing to assist him with information and advice. Facilities exist whereby the manufacturer can obtain the help needed to enable translation of the facts won by scientists working in research laboratories into terms of plant and processes. Some of the agencies maintain sections set up primarily for the very purpose of assisting industrialists or others needing or desiring information.

Some of the research divisions of C.S.I.R.O., for example, handle a considerable volume of requests for advice and information. The Organization also undertakes a certain amount of service work for industry, particularly in the field of metrology.

C.S.I.R.O. also undertakes a growing amount of sponsored research. University departments and technical colleges also help industry to some extent, and the Department of Metallurgy in the Melbourne University has fairly recently instituted a small section specifically to undertake research for industry. The University of New South Wales has set up an organization to undertake contract research, using the facilities of the university. Technical service departments of firms marketing chemical products and the like make a valuable contribution towards improving standards of practice in some sectors of industry. The Laboratories of the Department of Supply assist industry in respect of manufacture on defence contracts, and thus raise standards generally. In the larger cities, the services of public analysts are available.

Scientific and technical literature is available in Australia from the libraries of government institutions, public libraries, special libraries maintained by learned societies and professional institutes, universities, etc. Practically every technical journal of any importance in the English language is available in Australia, as are the more important journals published in other languages (together with the services of technical translators).

Technical information services are also available in the C.S.I.R.O., the Defence Standards Laboratories, and the Department of Trade to provide the industrial inquirer with information on new processes, raw materials and a wide variety of new developments.

Apart from the C.S.I.R.O., many Commonwealth Departments do a certain amount of research—some of them a great deal, e.g. the Department of Supply, which, in collaboration with the British Ministry of Supply, conducts the Long Range Weapons Research Establishment. The Department also maintains other laboratories, notably the Aeronautical

Research Laboratories and the Defence Standards Laboratories, both of which contribute towards technological advances in some sectors of manufacturing industry by helping in the development of new processes and products important for defence.

The Postmaster-General's Department conducts research into modern telecommunications, radio broadcasting and television, and the improvement of techniques, and has earned overseas recognition for this scientific work.

The Snowy Mountains Hydro-electric Authority has a scientific services division dealing with physical, engineering, geological and hydrological problems stemming from the developmental projects it has in hand.

More recently, the Australian Atomic Energy Commission has begun research, mainly concerned with the peaceful use of atomic energy (*see also* p. 788). Facilities are being developed and staff recruited. The Commission operates a research reactor (HIFAR) designed to operate at up to 10 Megawatts, and has also a 10-Kilowatt research reactor (MOATA). A 3-million-volt particle reactor is to be installed.

The Australian Institute of Nuclear Science and Engineering comprises the Australian Atomic Energy Commission and all Australian universities. Through operations of the Institute, Australian universities will be able to use the facilities of the Commission's laboratories at Lucas Heights, Sydney.

## § 2. Commonwealth Scientific and Industrial Research Organization

1. *General*.—By the *Science and Industry Research Act* 1949, the previously existing Commonwealth Council for Scientific and Industrial Research was re-organized under the title of the Commonwealth Scientific and Industrial Research Organization. An account of the organization and work of the former Council, and of the earlier Commonwealth Institute of Science and Industry from which the Council was formed, was given in earlier issues of the Official Year Book. (*See* No. 14, p. 1061 and No. 37, p. 1183.)

2. *Science and Industry Research Act 1949-1959*.—This Act provides for an Executive of the Organization consisting of nine members, to be appointed by the Governor-General, at least five of whom shall be persons possessing scientific qualifications; and an Advisory Council of the Organization, consisting of the members of the Executive, the Chairman of each State Committee constituted under the Act, and such other members as the Advisory Council, with the consent of the Minister, co-opts by reason of their scientific knowledge.

The powers and functions of the Organization are as follows:—(a) to initiate and carry out scientific research in connexion with primary or secondary industries in Australia; (b) to train research workers and to establish industrial research studentships and fellowships; (c) to make grants in aid of pure scientific research; (d) to establish and make grants to industrial research associations in any industry; (e) to test and standardize scientific apparatus and instruments; (f) to collect and disseminate scientific and technical information; (g) to publish scientific and technical reports and periodicals; and (h) to act as a means of liaison between Australia and other countries in matters of scientific research.

3. *Science and Industry Endowment Act 1926-1949*.—Under this Act, the Government established a fund of £100,000, the income from which is used to provide assistance to persons engaged in scientific research and in the training of students in scientific research. Provision is made for gifts or bequests to the fund, which is controlled by a trust consisting of the Executive of the Organization. In accordance with the Act, arrangements have been made to send a number of qualified graduates abroad for training in special fields of work.

4. *Work of the Organization*.—(i) *General*. The activities of the Commonwealth Scientific and Industrial Research Organization have necessitated a widespread and adaptable arrangement of its research laboratories. Centralization has been avoided, in the first place by establishing laboratories in different places in the Commonwealth wherever the necessary facilities, contacts and other suitable conditions could best be found, and secondly by the establishment of a State Committee in each of the six States. These Committees are widely representative of scientific and industrial interests, and advise the Executive or the Advisory Council on general matters and on particular questions of investigation and research.

For about twelve years after its establishment, the work of the previous Council was devoted mainly to the solution of problems affecting the agricultural and pastoral industries. Unlike manufacturing concerns, which often employ their own scientific staffs, the farmers and the pastoralists are dependent on outside help for the solution of their problems which

require research. It was a recognition of the greater need of the primary producer which directed the Council's early policy. In 1937, however, the Commonwealth Government decided to extend the activities of the C.S.I.R.O. so as to provide assistance to secondary industries, and several laboratories were established for work in that field; it was thus able to render to these industries assistance almost immediately after the outbreak of war.

(ii) *Establishments.* For the purpose of carrying out its research work, there are established within the Organization a number of Divisions and Sections. The Divisions, of which there are now thirty-one, comprise the major establishments for which special laboratory buildings have been erected and equipped; the Sections generally include establishments which have not reached a stage of development, so far as the scope and magnitude of their operations are concerned, to justify their designation as Divisions. As the Organization's investigations extend over the whole Commonwealth, and as many of the investigations which are being conducted—particularly those concerned with problems affecting the agricultural and pastoral industries—necessitate experimental work in the field, a number of field stations are established in various parts of Australia.

#### *Divisions.*

- Plant Industry, with main laboratories at Canberra and field stations.
- Entomology, with main laboratories at Canberra and field stations.
- Animal Health (laboratories in Melbourne, Sydney and Brisbane), Animal Genetics (main laboratory in Sydney) and Animal Physiology (main laboratory in Sydney), which together comprise the Animal Research Laboratories.
- Biochemistry and General Nutrition, with main laboratories at Adelaide and field stations.
- Soils, with main laboratories at Adelaide and extensive operations in the field.
- Forest Products, with main laboratories in Melbourne and field experiments.
- Food Preservation, with main laboratories at North Ryde (New South Wales), and a subsidiary laboratory in Brisbane.
- Fisheries and Oceanography, with main laboratories at Cronulla (New South Wales), and experimental work in coastal waters of Australia.
- Physics and Applied Physics, comprising the National Standards Laboratory at Sydney.
- Radiophysics, with main laboratory at Sydney and Observatory at Parkes, New South Wales.
- Physical Chemistry, Chemical Physics, Mineral Chemistry, Applied Mineralogy, Chemical Engineering, and Organic Chemistry, comprising the Chemical Research Laboratories in Melbourne.
- Tribophysics, with laboratories in Melbourne.
- Building Research, with laboratories in Melbourne.
- Mathematical Statistics, with main laboratory in Adelaide.
- Meteorological Physics, with main laboratory and field station in Melbourne.
- Land Research and Regional Survey, with headquarters in Canberra, and field stations at Alice Springs and Katherine (Northern Territory) and Kununurra (Kimberley, Western Australia).
- Protein Chemistry (Melbourne), Textile Industry (Geelong, Victoria) and Textile Physics (Sydney), which together comprise the Wool Research Laboratories.
- Coal Research, Sydney.
- Tropical Pastures, with main laboratories in Brisbane and field stations.
- Dairy Research, Melbourne.
- Wildlife Research, with main laboratories at Canberra.

#### *Sections.*

- Horticultural Research Station, Merbein (Victoria).
- Upper Atmosphere, with laboratory at Camden (New South Wales).
- Mineragraphic Investigations, Melbourne.
- Ore-dressing Investigations, Melbourne and Kalgoorlie.
- Fodder Conservation, Melbourne.
- Physical Metallurgy, Melbourne.
- Soil Mechanics, Melbourne.
- Engineering, Melbourne.
- Agricultural Research Liaison, Melbourne.
- Industrial Research Liaison, Melbourne.
- Editorial and Publications, Melbourne.
- Wheat Research Unit, Sydney.
- Sugar Research Unit, Melbourne.
- Computing Research Section, Canberra.

An Agricultural Research Liaison Section established at the Organization's Head Office assists in making results in agricultural research speedily available to State Departments of Agriculture for use in their extension work.

An Industrial Research Liaison Section has also been established at Head Office to foster liaison in the secondary and manufacturing fields.

The Organization's Head Office, with administrative and executive staff, is in Melbourne, and associated with it are the Organization's Central Library, Agricultural Research Liaison Section, Industrial Research Liaison Section and Editorial and Publications Section. The funds for the Organization are provided from two main sources, namely, from Commonwealth revenue by parliamentary appropriation, and from industry directly or indirectly by way of contributions and special grants. It has some 1,500 professional officers in its total staff of 4,500, and has an annual budget of £12 million.

C.S.I.R.O. maintains liaison offices in London and Washington, in each case as part of the British Commonwealth Scientific Office. These offices keep in close touch with developments throughout Europe and North America, and through them Australia receives advice of significant advances. These offices also play an important role in assisting scientists who are studying in the regions concerned. Numerous overseas studentships are maintained by C.S.I.R.O. as a means of raising the standard of training among its professional staff.

### § 3. Mount Stromlo Observatory

Mount Stromlo Observatory—since 1957 incorporated into the Australian National University—is the largest observatory in the southern hemisphere. It is in effect the Department of Astronomy of the Australian National University, and its staff members assist in the training of the future astronomers of Australia. In its instrumental resources, it is second only to some of the great observatories of America. Since it is located south of the Equator, it is placed especially advantageously for the conduct of research into the structure of the Milky Way System and of the Star Clouds of Magellan. The telescopes and auxiliary equipment at the Observatory provide access to parts of the sky that are forever hidden from the view of northern hemisphere astronomers. Mount Stromlo astronomers have therefore a special responsibility to do research on stars and other celestial objects at far southern declinations.

Mount Stromlo itself is a ridge of hills, approximately one mile long, situated at 35° 19' 16" South Latitude and 149° 0' 20" East Longitude, seven miles west of the city of Canberra. Its highest point is about 2,560 feet above sea level, and telescopes can be situated so as to be well screened from the lights of the city.

The first permanent installation on the site was established in 1911, but, because of the war and other circumstances, the development of the Observatory was delayed. It was not until 1925 that regular astronomical work could be undertaken. Since then, the Observatory has developed steadily, and now, under its third Director, the scientific staff consists of fifteen astronomers. This does not include ten scholars and a number of overseas astronomers visiting Mount Stromlo for periods of a year or so. With technical clerical and maintenance personnel, the total staff amounts to about 60 persons.

Mount Stromlo Observatory possesses eight mounted telescopes with apertures ranging from five inches to 74 inches. The 74-inch reflector is the largest telescope in the southern hemisphere. There are also special telescopes for the Time Service, and two overseas groups have major telescopes on the Observatory grounds. These telescopes are a 26-inch refractor from the Universities of Yale and Columbia, U.S.A., and a 26-inch Schmidt Telescope from the University of Uppsala, Sweden.

The principal fields of research at Mount Stromlo are as follows.

Studies of the structure and dynamics of the Milky Way system.

Investigation of the Large and Small Magellanic Clouds.

Studies of the physical properties of the interstellar medium of gas and dust, and its relation to the spiral structure of our galaxy.

Studies of the physics of the stars of the southern hemisphere by spectrographic means and by photoelectric techniques.

Maintenance of the National Time Service leading to studies of the variable rotation of the earth and polar motion.

Published accounts of the researches have a world-wide distribution.

The Observatory is at present engaged in a major expansion of equipment and staff. A permanent Field Station is under construction on Siding Spring Mountain (Latitude  $31^{\circ} 16'$  South; Longitude  $148^{\circ} 41'$  East; altitude, 3,820 feet) near Coonabarabran, New South Wales. This is an area having less cloud than Mount Stromlo. The principal instrument will be a modern 40-inch reflector, now being built in the United States. Other sites are being examined for the future development of astronomy in Australia.

At certain times, Mount Stromlo is open for inspection by members of the public when arrangements can be made so that the scientific work of the Observatory is not interrupted. A more detailed description of the Observatory's work is given in Official Year Book No. 46, pages 1142-4.

#### § 4. Australian Atomic Energy Commission

1. **Establishment and Functions of the Commission.**—In November, 1952, a Commission of three members was appointed to control the Commonwealth's activities in relation to uranium and atomic energy, and in April, 1953, upon the enactment of the *Atomic Energy Act 1953*, the Commission was established as a statutory authority, with powers and functions as defined in the Act. Under amending legislation, the number of Commissioners was increased to five in April, 1958. The Commission is a corporate and autonomous body, controlling its own service. It functions under the direction of the Minister for National Development.

The functions of the Commission fall under two main headings. Firstly, it is responsible for undertaking and encouraging the search for and mining of uranium, and is empowered to co-operate with the appropriate authorities of the States in connexion with these and related matters. Secondly, it is authorized to develop the practical uses of atomic energy by constructing and operating plant for this purpose, carrying out research and generally fostering the advancement of atomic energy technology.

2. **Uranium Prospecting and Mining.**—Uranium prospecting and mining in the Territories of the Commonwealth are freely open to private enterprise, subject to the *Atomic Energy Act 1953* and the Ordinances of the Territories. In the past, the Bureau of Mineral Resources, Geology and Geophysics of the Department of National Development has carried out, on behalf of the Commission, widespread aerial and ground surveys aimed at ascertaining the uranium resources of the Territories and delineating areas in which further search for uranium by private prospectors was considered worthwhile. Although rewards are no longer paid for discoveries of uranium, tax concessions are still allowed in respect of income earned from uranium mining. The Bureau of Mineral Resources provides prospectors and mining companies in the Territories with a wide range of technical and advisory services.

The development of the uranium resources of the States is governed by the legislation and policies of the States. Commonwealth assistance, in the form of aerial, geological and geophysical services, is available to the States, and State Mines Departments inspect uranium prospects and test samples submitted by prospectors.

Interest in the search for deposits of uranium has, however, declined in recent years because of world-wide over-supply.

Uranium oxide is being produced in Australia from ore deposits at Rum Jungle and South Alligator River, in the Northern Territory, and Mary Kathleen in Queensland. The Rum Jungle deposits were originally worked under arrangements between the Commonwealth and the Combined Development Agency, a joint procurement organization of the United States and United Kingdom Governments. Since 1953, mining and treatment operations have been conducted for the Commonwealth by a mining company. The treatment plant was commissioned in September, 1954, and the total production from that date to the 6th January, 1963, was sold to the Agency for defence purposes. As a result of sustained exploration in the area, a major new ore body—Rum Jungle Creek South—was discovered. This ore body was mined during the period April, 1961, to January, 1963. The Commonwealth Government has decided that treatment operations will continue at Rum Jungle, using ore stockpiled from the Rum Jungle Creek South mine. Apart from being successful financially, operations at Rum Jungle have made a significant contribution to the development of the Northern Territory. The Government decided therefore that the profits would be re-invested in the Northern Territory. The oxide produced will be available for sale at competitive prices. Exploration is continuing to determine whether or not further ore bodies exist in the area.

Uranium deposits at Radium Hill in South Australia were worked by the State Government, which built an ore concentration plant on the field and a plant for the treatment of the

concentrates at Port Pirie. Production of uranium oxide began in 1955, the output being sold to the Combined Development Agency. Operations ceased at the end of 1961, when the contract expired.

The Mary Kathleen ore body in the Mount Isa-Cloncurry district in Queensland has proved to contain Australia's largest reserve of uranium ore. A mine and treatment plant which cost over £10 million have been established in the area by a large mining company. Production from the plant is being sold to the United Kingdom Atomic Energy Authority for the British nuclear power programme under arrangements approved by the Commonwealth Government. Two other companies in the South Alligator region in the Northern Territory also had contracts with the Authority for the British nuclear power programme. These contracts were for relatively small tonnages, and one has now been completed. Both companies began production in 1959.

3. Research.—The Commission's Lucas Heights Establishment is the major Australian centre for atomic energy research and information. It has a programme of research in the development of nuclear power, the utilization of radio-isotopes, and in other associated fields, directed towards the long-term development of the resources of the country.

The major research effort of the Lucas Heights establishment is the evaluation of a high-temperature gas-cooled reactor system in which the fuel is dispersed in the moderator.

A number of reactor types, e.g. those employing graphite as the moderating material and an inert gas such as helium as the coolant, are being developed overseas. For various reasons, including the avoidance of duplication of effort, the Commission decided to investigate the feasibility of using beryllium metal or beryllium oxide as the moderator, and carbon dioxide (which is cheap and easily obtainable) as the coolant. Most work has been done on the metal system and effort is now being concentrated on the oxide or ceramic system, which appears to offer greater promise in the long run.

With all-ceramic fuel, higher operating temperatures can be achieved. This permits a reduction in the size and cost of heat exchangers and associated civil works and an improvement in steam conditions and overall efficiency.

The development of a new power reactor concept to a commercially economic stage generally takes 15 to 20 years and involves considerable expense. Since a number of different types of reactors have already been developed to a commercial stage, a new concept faces strong competition, and its development can, in general be justified only if it offers promise of some long-term advantages. The beryllium oxide moderated all-ceramic fuel reactor holds such promise.

Provided certain design problems can be satisfactorily solved, a dispersed fuel beryllium oxide based high-temperature gas-cooled reactor should yield lower plant and equipment costs than most other gas-cooled systems.

The maximum gas temperature will be limited by the ability of materials used in parts of the heat exchangers and for duct work to withstand it. Nevertheless it should be possible to achieve steam conditions equal to those likely to be used in any future conventional plants. At present, using available steels which are economically practicable, the maximum temperature of the carbon dioxide coolant would appear to be 750° C., a considerable advance on British gas-cooled stations of current design. There is no obvious reason why this temperature should not be raised as better structural materials are developed. Then gas-turbines or other plant could be used as topping sets, as has been proposed for future development in the conventional power field.

Thus there is plenty of scope for development, and the general concept is unlikely to become prematurely obsolete.

The Commission is also seeking to extend the use of radio-isotopes in Australia in scientific research and development, in the treatment of disease, in raising production and lowering costs in agriculture and in manufacturing industry. New applications are being continually devised. In Australia, these new processes are being used only in a small fraction of the possible fields. The use of isotopes is fostered by providing an advisory service which is a ready source of information on established uses, and by investigation of other projected applications. Isotopes, including short-lived isotopes which cannot be economically imported, are being produced in the high flux research reactor HIFAR, and some are being exported.

Research and development work on technical and scientific applications of radiation is also being carried out. The possibilities of radiation for such purposes as industrial

sterilization, food preservation, and the control of insect pests are being investigated. Scientists at Lucas Heights are also studying the biological effects and questions of health and safety involved in the use of radio-active materials.

Lucas Heights is a centre of specialized equipment and information. In addition to the research reactor HIFAR, used for testing materials and producing radio isotopes, there is much other equipment unique in Australia. All these facilities are available to universities and other institutions under suitable conditions. In these endeavours, the Atomic Energy Commission is working in close co-operation with the British Atomic Energy Authority, under arrangements which give Australia access to results of British research on peaceful atomic energy uses. Results of research in Australia are in like manner available to Britain. Work in Australia, though constituting a self-contained programme, is co-ordinated with the British programme to avoid overlapping of research objectives and duplication of investigations. Australia also has bilateral arrangements with the United States and Canada, and is taking part in the promotion of the peaceful uses of atomic energy through the International Atomic Energy Agency.

### § 5. Scientific Societies

1. **Royal Societies.**—The following table contains the latest available statistical information regarding the Royal Society in each State, the headquarters of which are in the capital cities.

ROYAL SOCIETIES  
(December, 1962)

Particulars	Sydney	Mel- bourne	Bris- bane(a)	Ade- laide	Perth	Hobart	Can- berra
Year of charter .. ..	1866	1859	1884	1880	1913	1844	1930
Number of members ..	355	402	270	204	209	583	196
Volumes of transactions issued ..	96	(b) 950	74	85	45	96	..
Number of books in library ..	39,000	25,000	58,500	21,500	6,000	33,840	..
Societies on exchange list ..	388	350	288	297	194	316	..

(a) 1961.

(b) Volumes of proceedings.

2. **Australian Academy of Science.**—The Australian Academy of Science is the national institution representing science in Australia. Constituted by Royal Charter presented personally by Her Majesty, Queen Elizabeth II, in Canberra on 16th February, 1954, the Academy promotes scientific knowledge and research, maintains standards of scientific endeavour and achievement in the natural sciences in Australia, and recognizes outstanding contributions to the advancement of science.

The Academy represents Australian science and scientists at the national and international level, organizes meetings of scientists, holds symposia, and arranges for visits of scientists from other countries to Australia.

In its functions, the Australian Academy is comparable with the Royal Society of London and national academies of science of many other countries. Its 100 Fellows (designated F.A.A.) are eminent in some branch of the physical or biological sciences in Australia, occupying professional positions in universities, the Commonwealth Scientific and Industrial Research Organization, other research organizations, and industry. A very few places are reserved for Fellows who have rendered conspicuous service in the cause of science.

No more than six new Fellows are elected in any one year. His Royal Highness, Prince Philip, Duke of Edinburgh, was admitted as a Royal Fellow during his visit to Canberra on 20th November, 1962.

The Australian Academy contributed substantially to the work of the International Geophysical Year and has developed plans for Australian participation in the International Year of the Quiet Sun, from April, 1964, to December, 1965.

Representation is provided at the General Assemblies of the International Scientific Unions and similar bodies relating to astronomy, geophysics, geology, physics, crystallography, mathematics, biochemistry, physiology, geography, biological sciences, chemistry, Antarctic research, space research and oceanic research.

On certain national scientific projects and matters with scientific implications, the Commonwealth Government has sought the Academy's advice.



As the Australian Academy of Science is too young a body to be financially self-sufficient, the Commonwealth Government makes annual grants of general purpose and special funds without affecting the autonomy of the Academy. These grants, together with substantial private benefactions, enable the Academy to continue its work. Research fellowships provided by industry are administered.

The Academy's £250,000 copper-domed circular conference centre was opened in 1959. It was paid for by donations from companies and individuals.

The Academy is managed by an elected council comprising a President, Treasurer, two secretaries, and eight ordinary members who are drawn equally from the physical sciences and biological sciences. Chief administrative officer is the Assistant Secretary, who is not a Fellow.

3. **The Australian and New Zealand Association for the Advancement of Science.**—This association was founded in 1887. Its headquarters are at Science House, Gloucester Street, Sydney, and congresses are held at intervals of approximately eighteen months in the various States and in the Dominion of New Zealand. The latest congress, celebrating the 75th Jubilee, was held in Sydney in August, 1962.

4. **Other Scientific Societies.**—The Linnean Society of New South Wales, with headquarters in Sydney, was founded in 1874. Sir William Macleay, who died in 1891, during his lifetime and by his will endowed the Society to the amount of £67,000, which has been increased by investment to approximately £100,000. The Society offers annually to graduates of the University of Sydney who are members of the Society and resident in New South Wales research fellowships (Linnean Macleay Fellowships) in various branches of natural history. One fellowship was awarded for 1963. The library has some 19,000 volumes. Eighty-seven volumes of Proceedings have been issued, and the Society exchanges with about 300 kindred institutions and universities throughout the world. The membership at the end of 1962 was 267.

The British Astronomical Society has a branch in Sydney, and in each of the States there is a branch of the Australian Medical Association.

There are over 200 other learned societies devoted to the study of particular sciences. Some of these, including the Royal Australian Chemical Institute and the Institute of Engineers, Australia, are qualifying bodies, admission to which is by qualification only. Others, such as the Institute of Food Technologists, are open to any interested person. Some societies, such as the Australian Biochemical Society, have annual symposia of a very high standard. A great many of these bodies publish appropriate journals.

## STATE GOVERNMENT EXPENDITURE ON EDUCATION, SCIENCE AND ART

The expenditure by each State Government on education, science and art during the year 1960-61 is shown in the following table. Since details are not available in all States, the figures exclude officers' pensions and superannuation, pay-roll tax, and interest and sinking fund on capital expended on buildings. The cost of the medical and dental inspection of school children is also excluded, as this service is more appropriately classified under public health.

STATE EXPENDITURE ON EDUCATION, SCIENCE AND ART, 1960-61  
(£'000)

State	Expenditure from—				Receipts	Net expenditure
	Revenue	Loan	Other funds	Total		
New South Wales ..	58,690	15,691	..	74,380	1,247	73,133
Victoria .. ..	40,874	12,925	..	53,799	539	53,260
Queensland .. ..	18,036	4,101	1,549	23,686	1,094	22,592
South Australia ..	15,512	4,893	..	20,405	1,694	18,711
Western Australia ..	11,645	2,742	30	14,418	250	14,168
Tasmania .. ..	5,898	2,139	39	8,076	476	7,600
<b>Total .. ..</b>	<b>150,655</b>	<b>42,491</b>	<b>1,618</b>	<b>194,764</b>	<b>5,300</b>	<b>189,464</b>

## CHAPTER XIX

### LOCAL GOVERNMENT

**NOTE.**—This chapter includes, in addition to information on the operation of local government authorities, information on the operation of certain semi-governmental authorities. The latter information is not comprehensive for this type of authority, and is included partly because of the association of the functions performed with those of local government authorities, and partly for convenience in preparation. Particulars of the activities of other semi-governmental authorities, e.g. transport, electricity and gas, and banking undertakings, for which only some financial statistics are given in this chapter, are included in the chapters relevant to those subjects.

#### § 1. Introduction

**1. Local Government Authorities.**—In each State of the Commonwealth, there exists a system of local government whose powers and responsibilities are in general similar, and cover such matters as the construction and maintenance of roads, streets and bridges, water, sewerage and drainage systems, and health and sanitary services, the supervision of building, and the administration of regulations relating to items such as weights and measures, slaughtering, the registration of dogs, etc. In addition to these obligatory functions, there are also many which may be performed by a local government authority either with or without the consent of the ratepayers or the Governor-in-Council. These include transport facilities, electricity, gas, and other business undertakings, hospitals, charitable institutions, recreation grounds, parks, baths, libraries, museums, etc.

The system is based on the principle of a grant of specific powers by the State legislatures to the local authorities, their autonomy, however, being more or less limited by the provision for general supervision by a department of the central government or by the Governor-in-Council. Otherwise, within the scope of the Acts under which they are constituted or which they have to administer, they are responsible only to the ratepayers.

While the broad pattern of local government throughout the States of Australia is similar, the range of activities, election of officers, methods of valuation and rating powers, etc., differ considerably.

The areas over which local government bodies exercise general control, numbering 900, are known in New South Wales as cities, municipalities and shires; in Victoria as cities, towns, boroughs and shires; in Queensland as cities, towns and shires; in South Australia as cities, corporate towns and district council areas; in Western Australia as cities, towns and shires; and in Tasmania as cities and municipalities. In New South Wales, some local government authorities in an area have combined to provide services such as electricity, water, sewerage and drainage—e.g. the county councils. Within shires, there are also some municipal units known as urban areas. Apart from the more thinly populated parts of New South Wales and South Australia, and the Commonwealth Territories, practically the whole of Australia comes within local government jurisdiction.

The financial statistics in § 2 following are classified under the headings of Ordinary Services and Business Undertakings. The former covers the obligatory and general functions referred to above. Business Undertakings include public utilities such as water supply, sewerage, electricity, gas, transport and hydraulic power undertakings, and other miscellaneous works such as abattoirs, quarries, ice works, cinemas, etc.

**2. Semi-governmental Authorities.**—In addition to local government authorities, a large number of authorities have been set up to control specific activities, which are often identical with some of those performed by either, or both, of the other classes of public authority—central government and local government—and a complete picture of any field of activity for a State or Australia as a whole cannot be obtained without reference to each class operating in that particular field. These semi-governmental authorities differ primarily from local government authorities in that their operations are restricted to the specific activity for which they were constituted—e.g. roads and bridges, water and sewerage electricity and irrigation, harbours, or tramways, etc.—i.e. each dispenses a specific service throughout an area as distinct from the general services of the local authority.

In §§ 3 to 7, which deal with debt, roads and bridges, water supply and sewerage, harbours, and fire brigades, particulars are included of the more important of these authorities which operate within the range covered by this chapter.

3. **Roads, Bridges, etc.**—The construction and maintenance of roads, bridges and ferries are generally part of the functions of local authorities, but in each State there exists a central road authority or a government department whose duties relate to the construction, reconstruction and maintenance of "main" and "developmental" roads, the distribution of funds to local bodies, and the supervision and co-ordination of road construction and policy throughout the State. Owing to difficulty in obtaining complete particulars of receipts and expenditure of the various local governing bodies in respect of roads under their control, the details of receipts and expenditure given in § 4 are those of central governments only, relating either to the supervisory board or commission in the State or to direct activities of a department. However, estimates of the aggregate net expenditure of all public authorities concerned with roads and bridges in Australia are given in paragraph 10 of that section. In § 2, some information is given of the revenue and expenditure of local government authorities in respect of roads.

4. **Water Supply and Sewerage.**—In the cities of Sydney and Melbourne, the control of water supply and sewerage is in the hands of special boards, while in Adelaide and Perth these services are under the direct supervision of government departments. In most of the other cities and towns, the municipal councils or, in some cases, water trusts, are the controlling bodies, which either construct the works out of their own resources or take them over after they have been constructed by the government.

5. **Harbours.**—The majority of the harbours in Australia are managed by boards, the members of which are either elected by persons interested, or appointed by the government. In some instances, however, they are directly controlled by the government.

6. **Fire Brigades.**—In all the States, the management of fire brigades is undertaken by boards. These boards usually comprise members elected by the councils of municipalities and insurance companies within the districts placed under their jurisdiction, and one or more members appointed by the government. Occasionally, volunteer or country fire brigades are represented.

## § 2. Local Government Authorities

1. **New South Wales.**—For purposes of local government, the whole of the Eastern and Central land divisions and a small portion of the sparsely populated Western division have been divided into cities, municipalities (most principal towns) and shires (mainly large rural areas, some of which include important towns). At the end of 1961, the area incorporated was 272,000 square miles, or nearly nine-tenths of the total area of the State.

All local government authorities in the State are subject to the general provisions of the *Local Government Act*.

Municipalities and shires may combine to form county councils for the establishment and conduct of services of joint benefit, e.g. electricity, water, sewerage. At 31st December, 1961, there were 58 county councils, including the Sydney County Council.

2. **Victoria.**—Local government is established throughout the State, the various divisions being termed cities, towns, boroughs or shires. The only unincorporated areas are French Island (41,600 acres) in Westernport Bay, Lady Julia Percy Island (652 acres) off Port Fairy, Bass Strait Islands (966 acres), part of Gippsland Lakes (81,920 acres), and Tower Hill (1,460 acres) adjacent to the Borough of Kororoit. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, but are now subject to several provisions of the *Local Government Act*.

3. **Queensland.**—The whole of the State (except certain islands along the coast, the Dawson Valley Irrigation Area and the Somerset Dam Area) is incorporated into cities, towns and shires under the *Local Authorities Act* 1902 and its amendments.

4. **South Australia.**—The settled portion of South Australia is incorporated, being mostly under municipal corporations in the larger cities and towns, and district councils in the agricultural areas.

5. **Western Australia.**—Local government is established throughout the State, the divisions being cities, towns and shires.

6. *Tasmania*.—The whole State is divided into municipal districts, Hobart and Launceston being incorporated as cities under separate Acts.

7. *Area, Population, Dwellings and Value of Ratable Property*.—The area, population, dwellings and value of ratable property in the incorporated areas of each State are shown for the year 1960-61 in the following table. The valuations relate to ratable property only and exclude government and other non-ratable property, whose value in the aggregate is considerable. In this table, particulars of dwellings are in accordance with the definition used in the 1961 Census, and are compiled from information collected on the Census Schedules. For the purpose of the Census, a dwelling was defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term has, therefore, a very wide reference and includes, in addition to houses and flats, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. Unoccupied dwellings include vacant dwellings available for sale and renting, "week-end" and holiday dwellings, and other dwellings temporarily unoccupied on the night of the Census. Dwellings being built are not included.

**LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS AND VALUE OF RATABLE PROPERTY, 1960-61**

Location	Num- ber	Area	Popula- tion	Dwellings		Value of ratable property		
				Occu- pied	Unoccu- pied	Unim- proved capital value	Im- proved capital value	Annual value
				No. (a)	No. (a)	£'000	£'000	£'000
NEW SOUTH WALES(b)								
Metropolitan— Capital City .. ..	1	7	172	48,599	2,311	167,672	484,768	26,006
Other .. ..	34	702	2,051	570,916	22,825	746,902	2,449,538	144,632
Outside Metropolitan Area	190	173,648	1,691	441,537	47,267	568,654	(c)	(c)
Total .. ..	225	174,357	3,914	1,061,052	72,403	1,483,228	(c)	(c)
VICTORIA(d)								
Metropolitan— Capital City .. ..	1	8	77	18,971	740	(c)	278,773	13,938
Other .. ..	43	715	1,837	505,637	16,093	(c)	1,588,089	80,825
Outside Metropolitan Area(e)	164	55,387	1,006	264,769	30,469	(c)	1,171,124	58,611
Total .. ..	208	56,110	2,920	789,377	47,302	(c)	3,037,986	153,374
QUEENSLAND(f)								
Capital City .. ..	1	246	594	160,588	5,441	70,838	(c)	(c)
Other(g) .. ..	130	425,980	918	236,845	28,544	249,526	(c)	(c)
Total .. ..	131	426,226	1,512	397,433	33,985	320,364	(c)	(c)
SOUTH AUSTRALIA(f)								
Metropolitan— Capital City .. ..	1	4	23	5,846	437	60,639	120,000	5,988
Other .. ..	20	100	567	158,054	5,157	(c)	456,000	22,796
Outside Metropolitan Area	121	36,867	365	95,205	11,208	(c)	415,000	20,773
Total .. ..	142	36,971	955	259,105	16,802	(c)	991,000	49,557
WESTERN AUSTRALIA(h)								
Metropolitan— Capital City .. ..	1	15	95	26,845	1,001	2,052	(c)	6,011
Other .. ..	18	107	325	88,003	2,686	44,447	(c)	3,142
Outside Metropolitan Area	126	624,466	314	79,469	9,939	62,974	(c)	1,776
Total .. ..	145	624,588	734	194,317	13,626	109,473	(c)	10,929

NOTE.—See next page for footnotes.

**LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS  
AND VALUE OF RATABLE PROPERTY, 1960-61—continued**

Location	Num- ber	Area	Popula- tion	Dwellings		Value of ratable property		
				Occu- pied	Unoccu- pied	Unim- proved capital value	Im- proved capital value	Annual value
				'000 acres	'000 (a)	No. (a)	No. (a)	£'000
TASMANIA(f)								
Metropolitan— Capital City .. ..	1	18	54	15,281	507	22,223	65,084	4,369
Other .. ..	2	99	59	14,483	795	10,398	42,908	2,361
Outside Metropolitan Area	46	16,661	237	61,494	7,280	60,344	203,148	13,293
Total .. ..	49	16,778	350	91,258	8,582	92,965	311,140	20,023

(a) Particulars of population and dwellings as at Census 30th June, 1961. (b) Year ended 31st December, 1960. (c) Not available. (d) Year ended 30th September, 1961. (e) Excludes Yallourn Works Area under the jurisdiction of the State Electricity Commission. (f) Year ended 30th June, 1961. (g) Includes City of Redcliffe and that part of Pine Rivers Shire within the Metropolitan Area of Brisbane but outside the Brisbane City area. (h) Municipalities—year ended 31st October, 1961; Road Districts—year ended 30th June, 1961.

8. **Finances.**—(i) *General.* The following tables show the latest available financial statistics for local government authorities. The figures relate to the year 1960-61 except for New South Wales, where they relate to the year 1960. For further detail on local government finances, see *Finance, Part I.—Public and Private Finance*, Bulletin No. 52, 1960-61, issued by this Bureau.

(ii) *Ordinary Services.* In the returns of revenue and expenditure for 1960-61 in the following tables, the proceeds from loans and expenditure thereof have been excluded. The financial operations of business undertakings controlled by the various local government authorities are given in the next paragraph. The profits resulting from the working of these undertakings, where taken into general revenue, have been included.

**LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND  
EXPENDITURE, 1960-61**

Particulars	N.S.W. (a)	Vic. (b)	Q'land (c)	S. Aust. (c)	W. Aust. (d)	Tas. (e)	Total
Number of local government authorities ..	225	208	131	142	145	49	900

**REVENUE (EXCLUDING LOAN RECEIPTS) (£'000)**

Taxation—							
Rates (net) ..	38,609	24,156	15,182	6,538	4,168	2,399	91,052
Penalties ..	323	100	..	..	..	..	423
Licences ..	828	193	149	86	154	30	1,440
Total ..	39,760	24,449	15,331	6,624	4,322	2,429	92,915
Public Works and Services—							
Sanitary and Garbage Services	3,741	1,681	2,458	45	512	221	8,658
Council Properties	3,403	(e) 4,667	678	528	1,148	288	10,712
Street Construction ..	2,198	1,819	..	1,260	360	24	5,661
Other ..	4,073	806	318	158	62	184	5,601
Total ..	13,415	8,973	3,454	1,991	2,082	717	30,632
Government Grants—							
Roads ..	12,974	244	2,413	(f) 3,112	1,541	410	20,694
Other ..	1,475	1,221	685	86	1,969	44	5,480
Total ..	14,449	1,465	3,098	3,198	3,510	454	26,174
Profits from Business Undertakings ..	..	356	..	..	49	..	405
Fees and Fines ..	..	222	..	77	56	..	6,075
All Others ..	..	371	(g) 4,815	..	335	199	..
Total Revenue ..	67,624	35,836	26,698	11,890	10,354	3,799	156,201

See next page for footnotes.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE, 1960-61—*continued*

Particulars	N.S.W. (a)	Vic. (b)	Q'land (c)	S. Aust. (c)	W. Aust. (d)	Tas. (c)	Total
EXPENDITURE (EXCLUDING LOAN EXPENDITURE) (£'000)							
General Administration ..	4,391	5,079	2,602	1,101	1,228	440	14,841
Debt Services (excluding Business Undertakings)—							
Interest ..	2,239	1,647	2,222	301	582	193	7,184
Redemption ..	4,246	2,119	3,108	570	1,022	330	11,395
Exchange ..	20	..	116	..	..	..	136
Other ..	..	26	41	..	..	..	67
<i>Total</i> ..	<i>6,505</i>	<i>3,792</i>	<i>5,487</i>	<i>871</i>	<i>1,604</i>	<i>523</i>	<i>18,782</i>
Public Works and Services—							
Roads, Streets and Bridges ..	32,186	12,102	8,183	7,781	2,854	1,675	64,781
Health Administration ..	1,787	419	2,922	238	294	88	15,559
Sanitary and Garbage Services ..	5,143	3,567		388	585	128	
Street Lighting ..	1,437	717	402	263	160	111	3,090
Council Properties ..	8,906	(h) 7,125	3,410	1,065	3,207	515	24,228
Other ..	3,123	885	185	153	69	50	4,465
<i>Total</i> ..	<i>52,582</i>	<i>24,815</i>	<i>15,102</i>	<i>9,888</i>	<i>7,169</i>	<i>2,567</i>	<i>112,123</i>
Grants—							
Fire Brigades ..	352	560	185	122	125	45	1,389
Hospitals and Ambulances ..	231	118	..	236	7	..	592
Other Charities ..							
Other ..	(f) 1,651	(j) 1,498	624	34	32	33	3,872
<i>Total</i> ..	<i>2,234</i>	<i>2,176</i>	<i>809</i>	<i>392</i>	<i>164</i>	<i>78</i>	<i>5,853</i>
All Other ..	2,250	551	(k) 3,217	..	265	228	6,511
<i>Total Expenditure</i>	<i>67,962</i>	<i>36,413</i>	<i>27,217</i>	<i>12,252</i>	<i>10,430</i>	<i>3,836</i>	<i>158,110</i>

(a) Figures for New South Wales relate to the year ended 31st December, 1960, and are on an income and expenditure basis as distinct from those of other States which are on a cash basis. (b) Year ended 30th September, 1961. (c) Year ended 30th June, 1961. (d) Municipalities—year ended 31st October, 1961; Road Districts—year ended 30th June, 1961. (e) Includes £2,187,000 plant hire. (f) Includes £1,436,000 reimbursement from Highways Department. (g) Includes the following reimbursements: £1,565,000 from Main Roads Department, £460,000 from other State Government Departments and £1,127,000 from other sources. (h) Includes £1,374,000 plant and equipment. (i) To Main Roads Department. (j) Includes £775,000 to Country Roads Board. (k) Includes expenditure on work done for re-imbursement: for Main Roads Department £1,564,000; for other State Government Departments £479,000; other £1,066,000.

## LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE (£'000)

Year.	N.S.W.(a)	Vic.(b)	Q'land(c)	S. Aust.(c)	W. Aust.(d)	Tas.(c)	Total
REVENUE (EXCLUDING LOAN RECEIPTS)							
1957 ..	45,570	24,840	19,623	8,694	7,404	2,721	108,852
1958 ..	52,440	26,742	21,654	9,313	7,966	2,848	120,963
1959 ..	55,946	29,456	23,618	9,977	8,544	3,147	130,688
1960 ..	61,024	32,864	25,593	10,667	9,437	3,404	142,989
1961 ..	67,624	35,836	26,698	11,890	10,354	3,799	156,201
EXPENDITURE (EXCLUDING LOAN EXPENDITURE)							
1957 ..	46,403	25,299	19,503	8,921	7,232	2,697	110,055
1958 ..	50,510	27,210	20,870	9,115	7,751	2,828	118,284
1959 ..	54,024	29,332	23,184	10,024	8,343	3,149	128,056
1960 ..	58,511	32,295	25,631	10,898	9,364	3,410	140,109
1961 ..	67,962	36,413	27,217	12,252	10,430	3,836	158,110

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Years ended 30th June. (d) Municipalities—years ended 31st October; Road Districts—years ended 30th June.

(iii) *Business Undertakings.* The tables hereunder show, for 1960-61, particulars of the revenue and expenditure, other than loan, of business undertakings under the control of the local government authorities. These particulars are not included in the foregoing tables.

**LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE  
AND EXPENDITURE, 1960-61  
(£'000)**

Particulars	N.S.W. (a)	Vic. (b)	Q'land (c)	S. Aust. (c)	W. Aust. (d)	Tas. (c)	Total
<b>REVENUE (EXCLUDING LOAN RECEIPTS)</b>							
Water Supply and Sewerage—							
Rates .. .. .	3,159	365	2,177	..	6	1,048	6,755
Charges for Services and							
Sales of Products ..	948	..	2,136	2	28	188	3,302
Other (including Grants) ..	(e) 892	12	444	..	3	219	1,570
Total .. .. .	4,999	377	4,757	2	37	1,455	11,627
Electricity and Gas—							
Rates .. .. .	450	..	5	..	..	..	455
Charges for Services and							
Sales of Products ..	69,068	15,341	7,076	508	764	..	92,757
Other (including Grants) ..	1,918	235	165	29	3	..	2,350
Total .. .. .	71,436	15,576	7,246	537	767	..	95,562
Railways, Tramways and							
Omnibuses—							
Charges for Services and							
Sales of Products ..	..	..	3,701	..	..	..	3,701
Other (including Grants) ..	..	..	146	..	..	..	146
Total .. .. .	..	..	3,847	..	..	..	3,847
Other—							
Rates .. .. .	(f) 13	(g) ..	(h) 11	(i) ..	(j) 61	(k) ..	85
Charges for Services and							
Sales of Products ..	3,730	906	313	81	61	179	5,270
Other (including Grants) ..	98	25	8	8	14	1	154
Total .. .. .	3,841	931	332	89	136	180	5,509
Grand Total .. ..	80,276	16,884	16,182	628	940	1,635	116,545
<b>EXPENDITURE (EXCLUDING LOAN EXPENDITURE)</b>							
Water Supply and Sewerage—							
Working Expenses .. ..	2,156	297	2,185	3	17	680	5,338
Depreciation .. .. .	(l) -180	18	..	..	..	..	-162
Debt Charges .. .. .	1,861	47	2,029	..	17	682	4,636
Other (including Transfers							
to General Revenue and							
Construction) .. .. .	..	11	679	..	..	111	801
Total .. .. .	3,837	373	4,893	3	34	1,473	10,613
Electricity and Gas—							
Working Expenses .. ..	61,071	13,893	4,491	467	595	..	80,517
Depreciation .. .. .	(l) 1,130	437	..	..	66	..	1,633
Debt Charges .. .. .	7,817	486	2,175	42	74	..	10,594
Other (including Transfers							
to General Revenue and							
Construction) .. .. .	..	603	632	43	49	..	1,327
Total .. .. .	70,018	15,419	7,298	552	784	..	94,071
Railways, Tramways and							
Omnibuses—							
Working Expenses .. ..	..	..	3,910	..	..	..	3,910
Debt Charges .. .. .	..	..	347	..	..	..	347
Other (including Transfers							
to General Revenue and							
Construction) .. .. .	..	..	212	..	..	..	212
Total .. .. .	..	..	4,469	..	..	..	4,469
Other—							
Working Expenses .. ..	(f) 3,558	(g) 760	(h) 142	(i) 66	(j) 30	(k) 110	4,686
Depreciation .. .. .	41	47	..	..	..	..	88
Debt Charges .. .. .	131	75	14	..	1	..	242
Other (including Transfers							
to General Revenue and							
Construction) .. .. .	..	58	501	..	78	22	659
Total .. .. .	3,730	940	657	66	129	153	5,675
Grand Total .. ..	77,585	16,732	17,317	621	947	1,626	114,828

(a) Year ended 31st December, 1960. (b) Year ended 30th September, 1961. (c) Year ended 30th June, 1961. (d) Municipalities—year ended 31st October, 1961; Road Districts—year ended 30th June, 1961. (e) Includes Government grant, £531,000, for part of cost of new works borne by Government. (f) Abattoirs and production of building materials. (g) Abattoirs, hydraulic power undertakings, quarries and iceworks. (h) Off-street car parking, municipal markets, amusement parks, hotels, and cinemas. (i) Quarries and hospitals. (j) Quarries, abattoirs and vermin control. (k) Abattoirs. (l) Net balance after deducting charge for debt redemption. The full amount of charge for debt redemption is included under debt charges.

NOTE.—Minus sign (—) indicates an excess of credits.

The next table shows the revenue and expenditure, other than loan, of local government business undertakings for the years 1956-57 to 1960-61.

### LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE AND EXPENDITURE

(£'000)

Year	N.S.W.(a)	Victoria(b)	Q'land(c)	S. Aust.(c)	W. Aust.(d)	Tas.(c)	Total
REVENUE (EXCLUDING LOAN RECEIPTS)							
1957 ..	55,392	11,462	12,651	527	644	988	81,664
1958 ..	61,526	13,021	13,175	548	702	1,151	90,123
1959 ..	66,378	15,242	14,113	563	771	1,272	98,339
1960 ..	72,790	16,505	15,329	601	896	1,487	107,608
1961 ..	80,276	16,884	16,182	628	940	1,635	116,545
EXPENDITURE (EXCLUDING LOAN EXPENDITURE)							
1957 ..	53,470	11,105	13,118	510	637	934	79,774
1958 ..	58,007	12,541	13,533	561	704	1,123	86,469
1959 ..	63,777	14,815	14,296	556	747	1,269	95,460
1960 ..	69,628	16,202	15,481	625	885	1,471	104,292
1961 ..	77,585	16,732	17,317	621	947	1,626	114,828

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Years ended 30th June. (d) Municipalities—years ended 31st October; Road Districts—years ended 30th June.

(iv) *Loan Expenditure.* The tables below show particulars for 1960-61 of loan expenditure on works connected with the ordinary services and the business undertakings of local government authorities.

### LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE, 1960-61

(£'000)

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
ORDINARY SERVICES							
Roads, bridges, streets, footpaths, drainage and sewerage .. ..	3,706	2,698	8,542	1,363	845	706	17,860
Council properties .. ..	(a) 2,639	(a) 1,392	(a) 2,279	129	(a) 994	(a) 397	9,853
Parks, gardens and recreational reserves .. ..	712	571		238	329	173	
Other .. ..	(b) 538	518	586	60	69	..	1,771
<b>Total .. ..</b>	<b>7,595</b>	<b>5,179</b>	<b>11,407</b>	<b>1,790</b>	<b>2,237</b>	<b>1,276</b>	<b>29,484</b>
BUSINESS UNDERTAKINGS							
Water supply .. ..	2,029	104	4,611	..	2	1,354	9,069
Sewerage .. ..	969	..	..	..	..		
Electricity and gas .. ..	11,883	1,189	2,713	42	135	..	15,962
Railways, tramways and omnibuses .. ..	..	..	238	..	..	..	238
Abattoirs .. ..	268	75	..	..	..	..	343
Other .. ..	..	..	12	..	..	..	12
<b>Total .. ..</b>	<b>15,149</b>	<b>1,368</b>	<b>7,574</b>	<b>42</b>	<b>137</b>	<b>1,354</b>	<b>25,624</b>
<b>Grand Total .. ..</b>	<b>22,744</b>	<b>6,547</b>	<b>18,981</b>	<b>1,832</b>	<b>2,374</b>	<b>2,630</b>	<b>55,108</b>

(a) Includes plant. (b) Includes advances for homes, £155,000.

NOTE.—For years to which particulars relate, see following table.



The following table shows the loan expenditure on works connected with local government ordinary services and business undertakings during the years 1956-57 to 1960-61.

**LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE**  
(£'000)

Year	N.S.W.(a)	Victoria(b)	Q'land(c)	S. Aust.(c)	W. Aust.(d)	Tas.(c)	Total
<b>ORDINARY SERVICES</b>							
1957 ..	5,857	3,711	4,596	924	1,334	580	17,024
1958 ..	5,644	4,215	5,673	1,077	1,580	455	18,644
1959 ..	5,941	4,313	6,225	1,313	2,093	812	20,697
1960 ..	7,001	4,733	8,480	1,157	1,819	1,109	24,299
1961 ..	7,595	5,179	11,407	1,790	2,237	1,276	29,484
<b>BUSINESS UNDERTAKINGS</b>							
1957 ..	9,656	1,300	5,348	58	36	761	17,159
1958 ..	11,024	1,796	5,022	99	159	1,163	19,263
1959 ..	11,645	1,505	6,464	54	144	958	20,770
1960 ..	12,776	1,319	6,304	58	78	1,226	21,761
1961 ..	15,149	1,368	7,574	42	137	1,354	25,624

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Years ended 30th June. (d) Municipalities—years ended 31st October; Road Districts—years ended 30th June.

### § 3. Local and Semi-Governmental Authorities' Debt

1. **General.**—Statistics of local and semi-governmental debt for the years 1956-57 to 1960-61 are given in the following paragraph. The information covers all local government authorities and those semi-governmental authorities responsible for the provision of the following services.

*New South Wales.* Water Supply, Sewerage and Drainage, Electricity Supply, Fire Brigades, and Banking. County Councils are included among these authorities.

*Victoria.* Water Supply and Sewerage, Irrigation and Drainage, Harbours, Tramways, Electricity and Gas Supply, Fire Brigades, Marketing (Buying and Selling), Industry Assistance, Grain Elevators, Housing, and Miscellaneous.

*Queensland.* Water Supply and Sewerage, Irrigation and Drainage, Harbours, Electricity Supply, Fire Brigades, University, Hospitals and Ambulances, Marketing (Buying and Selling and Agency), and Industry Assistance.

*South Australia.* Irrigation and Drainage, Tramways, Electricity Supply, Fire Brigades, Hospitals and Ambulances, Marketing (Agency), Industry Assistance, Banking, Housing, and Miscellaneous.

*Western Australia.* Water Supply and Sewerage, Irrigation and Drainage, Harbours, Tramways, Electricity Supply, Fire Brigades, Hospitals and Ambulances, Marketing (Agency), Housing, and University of Western Australia.

*Tasmania.* Harbours, Electricity Supply, Fire Brigades, Transport, and Housing.

A detailed list of the authorities included is shown in *Finance, Part I—Public and Private Finance, Bulletin No. 52, 1960-61.*

2. **Local and Semi-Governmental Authorities' Debt.**—The following table provides a summary of new money loan raisings, provisions for debt redemption, debt outstanding and interest payable by local and semi-governmental authorities for the year ended 30th June, 1961. For greater detail, see *Finance, Part I—Public and Private Finance.*

**LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES: NEW MONEY LOAN  
RAISINGS, REDEMPTION, DEBT AND INTEREST PAYABLE, 1960-61  
(£'000)**

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
<b>LOCAL GOVERNMENT AUTHORITIES</b>							
New Money Loan Raisings—							
From Government ..	270	272	1,550	720	34	236	3,082
From Public ..	10,424	6,773	11,746	1,235	3,037	2,402	35,617
Total ..	10,694	7,045	13,296	1,955	3,071	2,638	38,699
Funds Provided for Redemption—							
Government Loans ..	168	66	970	343	23	29	1,599
Loans due to Public ..	5,279	2,805	4,141	286	1,053	575	14,139
Total ..	5,447	2,871	5,111	629	1,076	604	15,738
Accumulated Sinking Fund Balance ..	4,974	3,183	8,131	..	80	237	16,605
Debt—							
Due to Government ..	2,113	1,825	14,570	1,699	261	846	21,314
Due to Banks (Net Overdraft) ..	23	486	..	..	16	..	525
Due to Public Creditor(a) ..	78,904	44,852	99,291	6,319	13,258	14,796	257,420
Total(a) ..	81,040	47,163	113,861	8,018	13,535	15,642	279,259
Maturing Overseas(a)(b) ..	2,265	..	3,236	..	..	..	5,501
Annual Interest Payable(a) ..	n.a.	2,365	5,518	360	705	798	n.a.

**SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES**

New Money Loan Raisings—							
From Government ..	16,512	19,130	4,669	8,129	3,450	7,202	59,092
From Public ..	22,580	36,479	8,879	4,205	2,413	1,082	75,638
Total ..	39,092	55,609	13,548	12,334	5,863	8,284	134,730
Funds Provided for Redemption—							
Government Loans ..	2,249	2,580	511	1,178	746	771	8,035
Loans due to Public ..	7,510	9,511	4,901	29	602	384	22,937
Total ..	9,759	12,091	5,412	1,207	1,348	1,155	30,972
Accumulated Sinking Fund Balance ..	32,120	13,330	8,586	1,289	1,499	733	57,557
Debt—							
Due to Government ..	188,101	220,515	20,760	125,629	45,692	91,885	692,582
Due to Banks (Net Overdraft) ..	5,121	789	127	54	2	..	6,093
Due to Public Creditor(a) ..	287,493	459,177	82,659	36,538	20,511	16,111	902,489
Total(a) ..	480,715	680,481	103,546	162,221	66,205	107,996	1,601,164
Maturing Overseas(a)(b) ..	6,250	5,393	..	..	..	..	11,643
Annual Interest Payable(a) ..	n.a.	31,297	5,129	7,011	2,983	4,809	n.a.

(a) Includes debt or interest payable in London and New York. Debt in London is payable in £ sterling which have been converted at the I.M.F. rate of £Stg.100 to £A.125; New York debt is payable in U.S. dollars which have been converted at the I.M.F. rate of \$2.24 to £A.1. (b) Included in debt figures above.

In the following tables, debt includes all liabilities for which arrangements have been made for repayment over a period of one year or more, and net overdrafts. Interest capitalized and amounts due for the capital cost of assets or for services rendered

which are to be repaid over a period of one year or more are included. Current liabilities, such as interest accrued (but not capitalized), trade creditors, amounts held in trust and other debts which are to be repaid in less than one year are not included. Net overdraft is the gross overdraft of all funds less all bank credit balances (including fixed deposits) which do not form part of a sinking fund to repay a loan. New loans raised during the year include new loan liabilities incurred during the year, loans raised from the public to repay indebtedness to the Government, and interest capitalized. Loans raised and redeemed within the year, increases in overdrafts, and loans raised for conversion or redemption of existing debt are excluded. Funds provided for redemption include instalments of principal repaid and amounts credited to sinking funds established for the purpose of repaying the debt on maturity. Amounts provided for redemption from loans raised for that purpose are excluded.

In the following table, a summary is given of new money loan raisings, provisions for the redemption of debt and debt outstanding of local and semi-governmental authorities for the years 1956-57 to 1960-61.

**LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES, AUSTRALIA: NEW  
MONEY LOAN RAISINGS, REDEMPTION AND DEBT**  
(£'000)

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
<b>LOCAL GOVERNMENT AUTHORITIES</b>					
New Money Loan Raisings—					
From Government .. ..	1,624	1,775	1,993	2,610	3,082
From Public .. ..	25,046	27,445	29,662	34,080	35,617
Total .. ..	26,670	29,220	31,655	36,690	38,699
Funds provided for Redemption—					
Government Loans .. ..	1,569	1,578	1,491	1,534	1,599
Loans due to Public .. ..	9,222	9,120	11,403	13,192	14,139
Total .. ..	10,791	10,698	12,894	14,726	15,738
Accumulated Sinking Fund Balance	12,865	13,710	14,106	15,316	16,605
Debt—					
Due to Government .. ..	17,753	17,922	18,805	19,819	21,314
Due to Banks (Net Overdraft) .. ..	637	448	686	465	525
Due to Public Creditor(a) .. ..	184,984	197,243	213,496	235,387	257,420
Total(a) .. ..	203,374	215,613	232,987	255,671	279,259
Maturing Overseas(a)(b) .. ..	6,499	6,320	6,140	5,962	5,501
<b>SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES</b>					
New Money Loan Raisings—					
From Government .. ..	51,644	56,948	54,242	54,525	59,092
From Public .. ..	62,777	73,924	73,689	86,290	75,638
Total .. ..	114,421	130,872	127,931	140,815	134,730
Funds provided for Redemption—					
Government Loans .. ..	3,978	6,829	8,484	7,281	8,035
Loans due to Public .. ..	10,496	15,041	12,934	17,539	22,937
Total .. ..	14,474	21,870	21,418	24,820	30,972
Accumulated Sinking Fund Balance	29,702	35,500	41,882	49,447	57,557
Debt—					
Due to Government .. ..	492,929	542,817	592,436	639,983	692,582
Due to Banks (Net Overdraft) .. ..	6,402	5,900	6,410	4,415	6,093
Due to Public Creditor(a) .. ..	626,172	697,910	764,944	840,497	902,489
Total(a) .. ..	1,126,103	1,246,627	1,363,790	1,484,895	1,601,164
Maturing Overseas(a)(b) .. ..	15,140	11,673	11,663	11,555	11,643

(a) See footnote (a) page 799.

(b) Included in debt figures above.

### § 4. Roads and Bridges

1. **Commonwealth Government Grants.**—The following table shows the allocation to the States under the several *Commonwealth Aid Roads Acts* for road construction, maintenance, repair and other works connected with transport for each of the years 1957–58 to 1961–62, and to the Commonwealth for expenditure on the construction and maintenance of strategic roads and for the promotion of road safety practices for each of the years 1957–58 and 1958–59. After 1st July, 1959, when the *Commonwealth Aid Roads Act* 1959 came into operation, the Commonwealth made separate provision for expenditure on strategic roads and the promotion of road safety practices. See also Chapter XXI. Public Finance, and *Finance* bulletins.

#### ROAD CONSTRUCTION, MAINTENANCE, ETC.: GRANTS UNDER THE COMMONWEALTH AID ROADS ACTS

(£'000)

Year ended 30th June—	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	C'wealth (a)	Total
1958 ..	9,495	6,264	6,585	3,879	6,658	1,733	1,000	35,614
1959 ..	9,930	6,543	6,890	4,056	6,967	1,813	1,000	37,199
1960 ..	12,172	8,660	8,021	4,922	7,964	2,184	..	43,923
1961 ..	12,870	9,184	8,428	5,128	8,090	2,300	..	46,000
1962 ..	13,811	10,080	9,093	5,752	8,764	2,500	..	50,000

(a) In the years prior to 1959–60, allocations under the *Commonwealth Aid Roads Act* 1954–1956 for expenditure on the construction and maintenance of strategic roads and the promotion of road safety practices.

2. **New South Wales.**—(i) *General.* A central road authority, known as the Main Roads Board, was created by legislation in 1925 for the purpose of providing improved and uniform standards of construction, reconstruction and maintenance of the principal roads of the State and to administer government subsidies for works on those roads. In 1932, the Main Roads administration was reorganized as a separate department under the control of a Commissioner. The activities of the Department of Main Roads include works on main, developmental and tourist roads throughout the State, all roads in the unincorporated portion of the Western Division, and certain associated works, principally bridges and vehicular ferries, constructed from government funds. The Department of Main Roads co-operates with the municipal and shire councils in the work of constructing and maintaining the main roads system.

Public roads, except those within the City of Sydney, may be proclaimed as main roads on the recommendation of the Commissioner for Main Roads, who takes into consideration the representations made by the councils concerned, availability of funds for construction and maintenance purposes, and the value of the roads as connecting links between centres of population or business. The classes of main roads are (i) the State highways, which form the principal avenues of road communication throughout the State and connect with similar avenues in other States; (ii) trunk roads, which, with the State highways, form the framework of a general system of intercommunication throughout the State; (iii) ordinary main roads, which provide a network of roads connecting towns and important centres of population with the State highways and trunk roads and with each other. In addition to the main roads, there are also (i) secondary roads (in the County of Cumberland), which carry a substantial volume of through traffic and thereby relieve neighbouring main roads of traffic, (ii) developmental roads, which help to develop country districts and (iii) tourist roads, which serve to make accessible areas or districts used by tourists.

In the County of Cumberland, which for the purposes of the *Main Roads Act* is deemed to include the City of Blue Mountains and small sections of other councils' areas on the boundary of the County of Cumberland, the full cost of road and bridge construction is paid from the funds of the Department of Main Roads. The Councils contribute towards the cost at the rate of  $\frac{1}{4}$ d. in the £ on the unimproved value of ratable property. The rate payable in respect of lands used principally for primary production is one-half the rate levied on other lands. In country districts, the Department meets the full cost of road and bridge works on State highways, the full cost of bridge works and three-quarters of the cost

of road works on trunk roads, and three-quarters of the cost of bridge works and two-thirds of the cost of road works on ordinary main roads. The cost of constructing developmental roads and works is borne in full by the Department of Main Roads, but local Councils are required to maintain them in a satisfactory condition. The Department of Main Roads meets half the cost of works on secondary roads and on tourist roads.

(ii) *Length of Roads.* (a) *Proclaimed Roads.* The total length of proclaimed roads in New South Wales at 30th June, 1962, was 25,540 miles classified as:—State highways, 6,493 miles; trunk roads, 4,163 miles; ordinary main roads, 11,647 miles; secondary roads, 100 miles; developmental roads, 3,083 miles; and tourist roads, 54 miles.

The length of main roads maintained by the Department of Main Roads at 30th June, 1962, was 5,268 miles (23.5 per cent.), while the length maintained by Councils was 17,035 miles (76.5 per cent.). These figures exclude secondary, developmental and tourist roads, and unclassified roads in the Western Division of the State. In the area outside the County of Cumberland (the metropolis and adjoining areas), the proportions of main roads maintained by the Department and Councils respectively were:—State highways, 64 per cent., 36 per cent.; and trunk and ordinary main roads, 5 per cent., 95 per cent. Unclassified roads in the Western Division of the State, totalling 1,031 miles, were maintained by the Department, while developmental roads, totalling 3,083 miles, were maintained by Councils. In the County of Cumberland, the proportions of main roads maintained by the Department and Councils respectively were:—State highways, 99 per cent., 1 per cent.; and ordinary main roads, 53 per cent., 47 per cent. Secondary roads totalling 100 miles were maintained by Councils. The 54 miles of tourist roads throughout the State were maintained by Councils.

(b) *Surface of Roads.* In 1960, the total length of all roads in New South Wales was estimated at 129,752 miles. The lengths of roads, according to their surface, were as follows:—bitumen or concrete, 18,476 miles; gravel or stone, 46,775 miles; formed only, 26,966 miles; cleared only, 37,535 miles.

(iii) *Main Roads Department.* (a) *General.* Progress has continued with the implementation of the Department's plan for main roads development in the County of Cumberland. Most of the Department's proposals have been incorporated in the County of Cumberland Planning Scheme approved by Parliament under the *Local Government (Amendment) Act 1951*.

The Department's proposals for the development of the main roads system in Newcastle and the surrounding districts have been largely incorporated in the Northumberland County District Planning Scheme, and some sections of the system have been constructed.

With some modifications, the Department's proposals for the planning of the main roads in the Wollongong-Port Kembla district have been incorporated in the planning scheme prepared by the Illawarra Planning Authority.

During 1961–62, 76 new bridges were constructed. In addition, 71 concrete box culverts each having a waterway width of 20 feet or more were completed. Major bridge works under construction included steel and/or concrete bridges over the Richmond River at Wardell on the Pacific Highway (length 736 feet); over the Richmond River at Ballina Street, Lismore, on the Bruxner Highway (length, 688 feet); over the Clyde River at Nelligen (length, 827 feet); over the Hunter River at Maitland (Belmore Bridge, length, 643 feet); over the Parramatta River at Gladesville (length, 1,900 feet); over the Lane Cove River at Fig Tree (length, 749 feet); over the Macquarie River at Gin Gin (length, 330 feet); over the Parramatta River at Silverwater (length, 657 feet); over the Darling River at Tilpa (length, 407 feet); and over the George's River at Taren Point (length, 1,662 feet).

(b) *Revenue and Expenditure.* The funds of the Department of Main Roads are derived principally from motor vehicle taxation, charges on heavy commercial goods vehicles under the *Road Maintenance (Contribution) Act 1958*, grants under *Commonwealth Aid Roads Acts* (see para. 1 above and Chapter XXI. Public Finance), other grants from the State or Commonwealth Governments, and proceeds of a levy on municipal and shire councils in the County of Cumberland in accordance with the *Main Roads Act 1924–1960*. The State Government also makes repayable advances for Main Roads Department works.

Revenue and expenditure for the five years 1957–58 to 1961–62 are shown below.

**DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES:  
REVENUE AND EXPENDITURE  
(£)**

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
<b>REVENUE(a)</b>					
Motor vehicle taxation, registration and licence fees .. ..	8,444,589	10,727,126	11,850,477	12,432,316	12,683,234
Commonwealth Aid Roads Act ..	6,468,726	6,926,549	7,719,608	8,239,061	8,936,462
State and Commonwealth grants ..	453,750	357,500	638,750	375,000	704,000
Contributions by other departments and bodies .. ..	305,153	240,412	360,978	382,689	237,572
Councils' contributions .. ..	1,119,731	1,384,927	1,649,122	1,858,878	2,269,553
Other .. ..	45,296	46,204	83,179	154,816	160,759
<b>Total .. ..</b>	<b>16,837,245</b>	<b>19,682,718</b>	<b>22,302,114</b>	<b>23,442,760</b>	<b>24,991,580</b>
<b>EXPENDITURE(b)</b>					
Roads and bridges—					
Construction .. ..	9,464,733	10,508,109	13,883,723	17,731,562	18,936,979
Maintenance .. ..	6,096,227	5,908,649	6,352,014	6,137,466	6,343,148
Administration .. ..	614,098	705,745	824,203	912,675	1,128,740
Interest, exchange, etc., on debt ..	184,067	190,789	202,439	227,238	252,649
Other(c) .. ..	202,179	212,895	351,394	542,127	531,783
<b>Total .. ..</b>	<b>16,561,304</b>	<b>17,526,187</b>	<b>21,613,773</b>	<b>25,551,068</b>	<b>27,193,299</b>

(a) Excludes repayable advances by the State Government (£150,000 in 1957-58, £800,000 in 1959-60, £575,000 in 1960-61 and £635,000 in 1961-62) and transfers from Sydney Harbour Bridge Account for Expressway construction (£100,000 in 1958-59, £362,000 in 1959-60, £768,000 in 1960-61 and £1,822,000 in 1961-62. Expenditure from these amounts is fully reflected in Expenditure. (b) Excludes debt redemption (£39,966 in 1957-58, £42,717 in 1958-59, £45,981 in 1959-60, £48,816 in 1960-61 and £53,075 in 1961-62) and repayment of government advances (£298,073 in 1958-59 and £400,000 in 1960-61). (c) Mainly purchase of assets not subject to annual depreciation charge. The purchase of other assets is omitted here because the depreciation charge for them is reflected each year in "Roads and Bridges.

The figures shown above represent the aggregate revenue and expenditure of five funds—the County of Cumberland Main Roads General and Special Purposes Funds, the Country Main Roads General and Special Purposes Funds, and the Developmental Roads Fund.

(c) *Sydney Harbour Bridge.* The Sydney Harbour Bridge was opened for traffic on 19th March, 1932. The main span is 1,650 feet and clearance for shipping 176 feet from high water level. The deck, 160 feet wide, carries a roadway of eight traffic lanes and two railway tracks, and there is also a footway on each side. The capital cost of the bridge and associated roadways to 30th June, 1962, was £11,786,864, but this amount will be reduced slightly on completion of the disposal of the remaining surplus resumed property. The portion met from repayable loan funds, over £10,100,000, is repayable from toll income. Income for 1961-62 amounted to £1,775,000, including road tolls, £1,575,180; railway passenger tolls, £143,285; and omnibus passenger tolls, £15,804. Expenditure amounted to £1,109,000; including interest, exchange, floatation expenses, etc., £426,840; sinking fund, £133,850; maintenance, £288,133; and major improvements, £22,869. The accumulated surpluses of the Bridge Account have been used to finance conversion of tram tracks to roadway and construction of city expressways. From 1957-58 to 1961-62 a total of £988,665 was expended on tram track conversion and £3,052,000 on city expressways. The account showed a deficiency of £867,106 at 30th June, 1962. During 1961-62, 30,871,000 road vehicles (excluding omnibuses and exempt vehicles), 25,371,000 rail travellers and 14,414,000 omnibus travellers crossed the bridge, contributing respectively 91 per cent., 8 per cent., and 1 per cent. of the total toll revenue.

3. *Victoria.*—(i) *General.* With the object of improving the main roads of the State, the Country Roads Board was established by legislation passed in 1912. The principal duties of the Board are to determine which roads should be declared in the various classifications; to supervise the construction, reconstruction and maintenance of these roads; to inquire into the State's resources in road materials and the most effective methods of road construction and maintenance; and to recommend deviations in existing roads or the construction of new roads in order to facilitate communications or to improve the conditions of traffic.

(ii) *Length of Roads.* (a) *Declared Roads.* The total length of roads in Victoria declared by the Country Roads Board at 30th June, 1962, was 14,506 miles, classified as follows:—State highways, 4,498 miles; main roads, 9,112 miles; by-pass roads, 9 miles; tourist roads, 426 miles; forest roads, 461 miles. The length of the surface treated (black) or higher type of pavements included in the foregoing mileage was 11,480 miles or 79 per cent. of the total.

(b) *Surface of Roads.* It is estimated that, in addition to the 14,506 miles of classified roads, there were approximately 87,000 miles of unclassified roads at 30th June, 1962. The latest detailed estimate of the length of roads and streets in Victoria (as at 30th September, 1961) provides the following information:—bitumen or concrete, 21,633 miles; gravel or stone, 32,118 miles; formed only, 22,576 miles; cleared only, 25,500 miles; total, 101,827 miles.

(iii) *Country Roads Board.* (a) *General.* During 1961–62, 1,764 miles of declared roads under the Board's control were treated with bitumen. In addition, 931 miles of undeclared roads, for which the Board contributed funds, were similarly treated. The total length of bitumen treatment carried out in 1961–62 was 2,817 miles (including 122 miles for other authorities). Of the work on the roads under the Board's control in 1961–62, 534 miles related to State highways and by-pass roads.

During 1961–62, 199 bridge projects of an estimated total value of £2,119,000 were initiated. Of these, 128, estimated to cost £800,000, were under municipal supervision.

(b) *Receipts and Payments.* The funds of the Country Roads Board are derived principally from motor registration fees, two-thirds of all money received by way of owners' certificates, one half of drivers' licence fees, fines, payments by the Commonwealth Government under the *Commonwealth Aid Roads Acts*, road charges under the *Commercial Goods Vehicles Act* and repayments by municipalities. In addition, loans have been authorized from time to time under the *Country Roads Acts* for permanent works on main and developmental roads, State highways, tourists' roads and forest roads, while the State Government has provided, free of repayment, loan moneys for restoration of flood and bush fire damage. During the year ended 30th June, 1962, loan receipts and payments each amounted to £683,000. The total loan expenditure to 30th June, 1962, was £15,353,183. This figure does not include loan expenditure from the Developmental Roads Loan Account, a fund which was created for the purpose of constructing and maintaining subsidiary or developmental roads. Loan money raised on this account was exhausted at 30th June, 1937, the total expenditure at that date being £6,425,758.

**COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS**  
(£)

Particulars	1957–58	1958–59	1959–60	1960–61	1961–62
<b>RECEIPTS</b>					
Motor vehicle registration fees(a) ..	8,013,268	8,340,079	8,941,256	9,282,073	9,529,594
Drivers' licence fees(a) ..	219,342	(b)284,994	(b)452,324	(b)256,673	(b)259,890
Drivers' licence testing fees ..	..	..	..	38,969	76,901
Municipalities' payments ..	560,092	685,773	723,803	788,663	777,667
Commonwealth Aid Roads Acts(c) ..	6,158,907	6,870,975	8,460,574	8,983,776	9,877,696
Loans from State Government ..	402,822	75,834	160,000	283,000	683,000
Commonwealth-State contribution for restoration of flood damage ..	460,452	53,171	5,124	966	..
Road charges Commercial Goods Vehicles Act .. ..	1,529,236	1,873,424	2,117,494	2,254,421	2,262,417
Other .. ..	37,114	30,263	43,994	50,223	(d)575,704
<b>Total .. ..</b>	<b>17,381,233</b>	<b>18,214,513</b>	<b>20,904,569</b>	<b>21,938,764</b>	<b>24,042,869</b>

NOTE.—See next page for footnotes.

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS—*continued*  
(£)

Particulars.	1957-58	1958-59	1959-60	1960-61	1961-62
PAYMENTS					
Construction and maintenance of roads and bridges—					
State highways .. .. .	4,988,708	5,357,732	5,852,042	6,880,998	6,836,437
Main roads .. .. .	5,428,679	5,536,431	6,259,203	5,919,265	7,426,610
By-pass roads .. .. .	..	28,579	266,880	1,096,742	682,635
Tourist roads .. .. .	457,735	453,877	551,088	600,132	572,755
Forest roads .. .. .	127,775	190,652	192,060	275,365	295,101
Unclassified roads .. ..	3,615,378	3,371,433	3,974,049	4,228,144	5,193,213
Other .. .. .	107,469	82,899	124,589	88,612	69,295
Plant, stores and materials ..	1,053,254	712,974	1,028,042	708,141	174,694
Interest, debt redemption, etc. ..	831,077	862,583	875,034	888,244	927,527
Office building, Kew—capital cost ..	..	..	452,275	528,123	19,554
Statutory payment to Tourists' Resorts Fund .. .. .	108,780	144,770	151,737	187,872	191,554
Administration and other .. ..	860,760	1,004,542	1,221,756	1,177,903	1,651,472
<b>Total .. .. .</b>	<b>17,579,615</b>	<b>17,746,472</b>	<b>20,948,755</b>	<b>22,579,541</b>	<b>24,040,847</b>

(a) After costs of collection. Since 1950, one half of the drivers' licence fees has been credited to the funds of the Country Roads Board while the remaining half has been credited to the Municipalities Assistance Fund. (b) Owing to the gradual change-over in currency of drivers' licences from one year to two and three years, revenue from drivers' licences increased slightly in 1958-59, reached a peak in 1959-60, and thereafter declined to normal levels. (c) Excludes portion of *Commonwealth Aid Roads Acts* advances drawn by the Public Works Department for expenditure on wharfs, jetties, etc. (d) Includes £500,000 Special Grant from Commonwealth Government.

(iv) *Melbourne and Metropolitan Board of Works.* Since assuming responsibility for carrying-out planning scheme proposals relating to metropolitan highways and bridges, a tentative £20,000,000 construction programme of urgent highway works throughout the metropolitan area of Melbourne has been adopted and is being progressively implemented by the Board of Works. Expenditure on these projects up to 30th June, 1962, was £2,617,046.

(v) *Level Crossings.* In 1954-55, the Level Crossings Fund was created under the *Country Roads and Level Crossings Funds Act 1954* to finance (a) the elimination of level crossings or the provision of alternative routes to enable road traffic to avoid level crossings; (b) the provision of lights, signs, and lighting at, and the improvement of approaches to, level crossings; and (c) generally, the reduction of danger at level crossings. The Act provides for the payment into the Fund of one-third of all moneys received by way of additional motor registration fees (owner's certificates) and money provided under any other Act. The amount available for expenditure in 1961-62 was £478,845, comprising receipts from owners' certificates, £291,463, recoups, £167,646 and the balance brought forward from 1960-61, £19,736. Expenditure from the Fund amounted to £478,845, of which £343,070 was incurred by the Railways Department and the balance by the Country Roads Board.

4. *Queensland.*—(i) *General.* Under the *Main Roads Act 1920*, a Main Roads Board was constituted, consisting of three members appointed by the Governor-in-Council. In 1925, the Board was abolished and its powers conferred upon a single Commissioner. The Main Roads Commission was constituted a Department under the name of the Department of Main Roads in February, 1951, with the Commissioner of Main Roads as its permanent head. The duties of the Commissioner are to carry out surveys and investigations necessary to determine State highways, main, developmental, secondary, mining access, farmers' and tourist roads, and tourist tracks; and the responsibility for building and maintaining these declared roads is largely that of the Commissioner. Roads of purely local importance are constructed and maintained by local authorities. In many cases, construction is financed by the State Government by means of Treasury loans. Other roads may be built by the Public Estate Improvement Branch of the Lands Department in order to open up areas of previously inaccessible or undeveloped country.



(ii) *Length of Roads.* (a) *Declared Roads.* The total length of declared roads in Queensland at 30th June, 1961, was 20,650 miles; comprising State highways, 8,247 miles; main roads, 10,273 miles; developmental roads, 230 miles; and secondary roads, 1,900 miles. By the amendments to the *Main Roads Acts* published in the Government Gazette of 6th April, 1959, mining access, farmers' and tourists roads became secondary roads, and the provisions relating to the declaration of tourist tracks were repealed.

(b) *Surface of Roads.* The total length of roads and streets in Queensland at 30th June, 1962, was:—bitumen or concrete, 11,016 miles; gravel or stone, 19,850 miles; formed only, 41,265 miles; cleared only, 48,985 miles; total, 121,116 miles.

(iii) *Department of Main Roads.* (a) *General.* During 1960–61, the Department completed 1,368 miles of roads, including new construction and stage construction. Bridges of all types to a length of 7,188 linear feet were constructed, bringing the total constructed by the Department at 30th June, 1961, to 216,737 feet. In addition, at 30th June, 1961, 6,553 feet were under construction.

(b) *Receipts and Payments.* The funds of the Department of Main Roads are obtained chiefly from motor vehicle registration and collections, fees, etc. under the *Transport Acts*, contributions under the *Commonwealth Aid Roads Acts*, and loans, grants and advances from the State Government. The total receipts and payments, including amounts for defence works, during each of the years 1956–57 to 1960–61 are shown below.

**DEPARTMENT OF MAIN ROADS, QUEENSLAND: RECEIPTS AND PAYMENTS**  
(£)

Particulars.	1956–57	1957–58	1958–59	1959–60	1960–61
<b>RECEIPTS</b>					
Motor vehicle registration, Transport Acts collections, fees, etc. ..	4,608,807	4,797,882	5,036,414	5,404,547	5,568,994
Loans from State Government ..	..	125,000	621,865	..	..
Grants, advances, refunds, etc. from State Government ..	..	47,414	241,861	325,755	357,942
Commonwealth Aid Roads and Works Acts ..	6,012,899	7,020,231	7,353,215	7,912,040	8,268,742
Maintenance repayments—local authorities ..	590,885	611,124	648,882	707,813	723,187
Hire, rent, sales of plant, etc. ..	882,316	945,525	1,126,739	1,250,205	1,219,599
Other ..	405,555	479,362	548,287	601,415	523,413
<b>Total ..</b>	<b>12,500,462</b>	<b>14,026,544</b>	<b>15,577,263</b>	<b>16,201,775</b>	<b>16,661,877</b>
<b>PAYMENTS</b>					
Permanent road works and surveys	7,953,553	8,027,715	8,680,460	11,380,919	10,826,353
Maintenance of roads ..	2,372,221	2,556,029	2,790,004	2,890,698	2,456,530
Plant, machinery, buildings, etc. (including plant maintenance) ..	1,287,443	1,239,085	1,000,793	1,345,167	1,394,807
Loans—Interest ..	242,592	208,498	198,098	156,542	107,490
Redemption ..	256,048	256,287	330,561	329,722	318,288
Administration and other ..	1,022,760	1,061,891	1,157,569	1,270,686	1,521,589
<b>Total ..</b>	<b>13,134,617</b>	<b>13,349,505</b>	<b>14,157,485</b>	<b>17,373,734</b>	<b>16,625,057</b>

5. South Australia.—(i) *General.* The Highways and Local Government Department is administered by the Commissioner of Highways, who is empowered, subject to the approval of the Minister of Roads, to undertake the construction, maintenance and protection of the principal roads of the State, allocate grants to councils for roadworks and supervise the expenditure of these grants, and assist Councils to purchase road-making plant and to defray the cost of roadworks. In addition, the Commissioner advises Councils on technical questions concerning the construction, maintenance or repair of roads.

(ii) *Source of Funds.* Funds of the Department are derived mainly from the Highways Fund, into which are paid the proceeds from motor vehicle registration and drivers' licences (less cost of collection), appropriations from loan funds, repayments of advances made to Councils and contributions by the Municipal Tramways Trust, and from contributions under the *Commonwealth Aid Roads Acts*.

(iii) *Length of Roads.* In South Australia, there are only two classifications of roads. These are main roads proclaimed under the provisions of the *Highways Act* and all other roads, commonly designated district roads. At 30th June, 1962, there were 8,188 miles of proclaimed main roads and 54,405 miles of district roads, totalling 62,593 miles. Lengths of road classified by surface were as follows:—Bitumen or concrete, 5,614 miles; gravel or stone, 13,360 miles; formed only, 15,326 miles; cleared only, 28,293 miles.

(iv) *State Highways and Local Government Department, Receipts and Payments.* The following table shows particulars of receipts and payments, during the years 1957–58 to 1961–62, of funds controlled by the Highways and Local Government Department.

#### HIGHWAYS AND LOCAL GOVERNMENT DEPARTMENT, SOUTH AUSTRALIA: RECEIPTS AND PAYMENTS

(£)

Particulars	1957–58	1958–59	1959–60	1960–61	1961–62
RECEIPTS					
Motor vehicles registration, licences, fees ..	3,470,933	3,748,763	3,942,087	4,111,494	4,293,105
Commonwealth Aid Roads Acts ..	3,907,129	4,361,892	4,923,122	5,128,065	5,752,281
Loans from State Government ..	15,000	85,000	85,000	90,000	200,000
Other .. .. .	470,150	443,577	445,484	449,333	533,812
<b>Total .. .. .</b>	<b>7,863,212</b>	<b>8,554,232</b>	<b>9,395,693</b>	<b>9,778,892</b>	<b>10,779,198</b>

PAYMENTS					
Construction and reconstruction of roads and bridges .. .. .	3,738,544	5,096,450	6,113,227	6,465,892	7,307,955
Maintenance .. .. .	2,123,008	2,174,320	2,183,012	2,095,253	2,337,218
Recoups to Consolidated Revenue Fund—interest, debt redemption and exchange .. .. .	202,646	205,361	213,631	215,539	227,041
Advances to local and semi-governmental authorities .. .. .	293,349	464,723	301,929	702,718	420,157
Administration .. .. .	524,374	(a)	(a)	(a)	(a)
Stores, plant, machinery, suspense accounts, etc. ..	778,875	514,886	439,732	495,036	406,868
<b>Total .. .. .</b>	<b>7,660,796</b>	<b>8,455,740</b>	<b>9,251,531</b>	<b>9,974,438</b>	<b>10,699,239</b>

(a) Administrative expenses, amounting to £735,738 in 1959–60, £844,780 in 1960–61 and £1,006,179 in 1961–62, have been charged to construction and reconstruction of roads and bridges and to maintenance.

The total expenditure, both revenue and loan, by State and local governments on roads, streets and bridges in South Australia during the years 1957–58 to 1960–61 was, respectively, £9,889,000, £10,556,000, £12,277,000, and £13,517,646.

6. **Western Australia.**—(i) *General.* Work connected with road construction and maintenance and associated projects in Western Australia is undertaken by the State Government, through the Main Roads Department, and by local government authorities throughout the State.

Under the provisions of the *Main Roads Act*, the Main Roads Department was established in 1930 to replace the Main Roads Board originally constituted as a central road authority in 1926. The Department operates under the *Main Roads Act* 1930–1961, and is administered by a Commissioner of Main Roads responsible to the Minister for Works. The Act makes provision for public roads in the categories of main roads, controlled-access roads and developmental roads. An additional category, that of important secondary roads, is used by the Department in determining its works programme.

Main roads are those which provide communication between a large producing area, either actual or potential, and its market or nearest port or railway station, between two or more such areas, between large centres of population, or between the capital city and a large producing area or a large centre of population. Controlled-access roads do not permit direct access from abutting property and may be entered and departed from only at certain selected road connexions located at points which are considered to serve best the traffic for which the controlled-access roads were designed. Developmental roads are those which serve to initiate or increase the development of an area. Important secondary roads are those which, though originally classified as developmental, have come to be used consistently by through traffic and therefore warrant a special allocation of funds by the Main Roads Department. The Act provides that, on the recommendation of the Commissioner, any road may be proclaimed a main road and any main road may cease to be a main road.

The construction and maintenance of main roads and controlled-access roads are the responsibility of the Main Roads Department. The Department also makes substantial financial provision for the construction and maintenance of important secondary roads and for the construction of developmental roads.

Within its own district, each local government authority is responsible for the provision and upkeep of roads other than those provided by the Main Roads Department. In addition, the local authority is required by the *Main Roads Act* to maintain any developmental road situated in its district.

(ii) *Length and Surface of Roads.* (a) *General.* The total length of roads and streets in Western Australia at 30th June, 1962, was made up as follows:—bitumen or concrete, 9,850 miles; gravel or stone, 20,097 miles; formed only, 41,283 miles; cleared only, 23,017 miles; natural state, 71 miles; total, 94,318 miles.

(b) *Roads under Main Roads Act.* The total length of roads for which financial provision was made by the Main Roads Department at the 30th June, 1962, was:—declared main roads, 3,542 miles, including 76 miles of controlled-access of which 5 miles have been constructed; important secondary roads, 7,538 miles; and developmental roads, 23,197 miles.

(iii) *Main Roads Department.* (a) *General.* During the year 1961–62, the activities of the Department included clearing, 1,884 miles; forming, 2,920 miles; gravelling, 1,790 miles; reconditioning, 5,900 miles; and stabilizing, 244 miles. In addition, 1,716 miles were primed and sealed (including widening) and 19 bridges constructed.

(b) *Receipts and Payments.* The funds of the Main Roads Department are derived principally from allocations made under the *Commonwealth Aid Roads Act* 1959. In addition, financial assistance was given by the Commonwealth Government in 1961–62 to the extent of £500,000 for the improvement of roads used for the transport of beef cattle in the Kimberley District. Further legislation during 1962 provided for an extension of this special assistance for a total of five years, involving in all £3,450,000, subject to the expenditure by the State of the same amount on such projects during this period. During 1961–62 also, the sum of £160,000 was granted by the Commonwealth Government and matched by a similar State contribution for the restoration of roads damaged during the severe floods in the north-west in early 1961. Other sources of income include one-half of the net amount of traffic fees collected in the Metropolitan Traffic Area and an allocation of Transport Board funds. (Outside the Metropolitan Traffic Area, motor vehicle licence fees are collected and retained by the local authorities.) Receipts and payments for the years 1957–58 to 1961–62 are shown in the following table.

**MAIN ROADS DEPARTMENT, WESTERN AUSTRALIA:  
RECEIPTS AND PAYMENTS**

(£ )

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
<b>RECEIPTS</b>					
Motor vehicle registration, licences, fees, etc. ..	489,443	488,386	539,459	486,948	486,948
Central Trust Fund .. .. .			(a)351,604	(a)707,569	a1,060,511
Commonwealth Aid Roads Acts .. .. .	6,741,558	7,555,565	7,687,130	7,428,808	7,752,996
Commonwealth Aid Roads Acts—matching grants .. .. .			(a)351,591	(a)703,533	a1,051,647
Western Australia Grant (Beef Cattle Roads) Act 1961 .. .. .					500,000
Commonwealth-State Grant to restoration of flood-damaged roads .. .. .					320,000
Recoups from other authorities .. .. .	165,987	152,754	183,106	217,196	246,920
Other .. .. .	14,355	5,254	4,777	3,179	5,331
<b>Total .. .. .</b>	<b>7,411,343</b>	<b>8,201,959</b>	<b>9,117,667</b>	<b>9,547,233</b>	<b>11,424,533</b>

**PAYMENTS**

Construction and reconstruction of roads and bridges(b) .. .. .	5,341,743	5,763,882	6,434,690	5,447,028	6,469,990
Maintenance of roads and bridges(b) .. .. .	528,300	570,054	910,846	974,053	1,086,042
Grants to local authorities, etc. .. .. .	936,622	1,078,395	1,182,255	1,263,722	1,436,651
Payments to local authorities from Central Road Trust Fund and Commonwealth matching grants .. .. .				403,799	724,873
Transfer to State Consolidated Revenue .. .. .	70,000	70,000	70,000	70,000	70,000
Plant, machinery, etc. .. .. .	456,041	222,864	160,749	368,760	240,141
Other(b) .. .. .	242,489	288,608	221,817	243,896	387,522
<b>Total .. .. .</b>	<b>7,575,195</b>	<b>7,993,803</b>	<b>8,980,357</b>	<b>8,771,258</b>	<b>10,415,219</b>

(a) Includes amounts to be distributed to metropolitan and country local authorities early in the following year. (b) Includes administration and expenditure on hire and maintenance of road construction plant, etc., and on purchase of materials.

7. Tasmania.—(i) *General.* Under the *Road Construction (Transfer of Functions) Act* 1951, which came into operation on 1st July, 1951, the control of the construction and maintenance of roads and certain road making plant was vested in the Minister for Lands and Works. Works authorized by the Minister in respect of roads classified as State highways, tourist, and developmental roads are constructed by the Department of Public Works and financed from the State Highways Trust Fund, into which are paid the proceeds from Commonwealth Aid Roads grants, motor vehicle registration fees and taxes, licence fees for drivers and public transport, and other moneys made available by Parliament. In addition, provision was made under the *Road Construction (Transfer of Functions) Act* for certain works authorized by the Transport Commission to be carried out and constructed by the Department. The expenditure by the Public Works Department during 1960-61 on the construction of roads, tracks and bridges amounted to £6,273,000, of which £3,571,000 was charged to road funds, £28,000 to revenue, £2,624,000 to loan and £50,000 to other funds. Except in special cases, municipal councils bear the cost of maintaining country roads and a proportion of the cost of main and secondary roads.

(ii) *Length of Roads.* (a) *Classified Roads.* The mileages of classified roads in Tasmania at 30th June, 1962, were as follows:—State highways, 1,156 miles; main roads, 666 miles; secondary roads, 196 miles; tourist roads, 46 miles; developmental roads, 16 miles; other roads, 135 miles; total, 2,215 miles; total roads, excluding State roads, 9,678 miles. The mileages of sealed roads, and their proportions to the respective totals were:—State highways, 752 miles (65 per cent.); main roads, 368 miles (55 per cent.); secondary and other roads, 57 miles (17 per cent.); total, 1,177 miles (53 per cent. of all classified roads, and 10 per cent. of all roads in Tasmania).

(b) *Surface of Roads.* The length of all roads in Tasmania, including those with surfaces of lower grade, at 30th June, 1962, was as follows:—bitumen or concrete, 2,052 miles, gravel or stone, 8,340 miles; formed only and cleared only, 1,501 miles; total, 11,893 miles.

(iii) *Receipts and Payments—Combined Road Funds.* The table below shows particulars of the receipts and payments of the combined Road Funds for the years 1957–58 to 1961–62.

### ROAD FUNDS, TASMANIA: RECEIPTS AND PAYMENTS

(£)

Particulars	1957–58	1958–59	1959–60	1960–61	1961–62
<b>RECEIPTS</b>					
Motor vehicle taxation and registration, licences, fees, fines, etc. . .	1,023,055	1,049,463	1,112,674	1,162,869	1,254,327
Commonwealth Aid Roads and Works Acts . . . . .	1,745,888	1,948,491	2,183,461	2,299,992	2,500,008
Recoups from local authorities, etc. . .	9,192	9,641	9,384	8,555	8,515
State Loan Fund . . . . .	600,083	705,630	1,168,558	2,461,289	2,062,319
Hire of plant . . . . .	1,076,810	1,181,032	1,273,535	1,393,102	1,452,402
Other . . . . .	52,310	89,219	107,803	376,795	(a)496,033
<b>Total . . . . .</b>	<b>4,507,338</b>	<b>4,983,476</b>	<b>5,855,415</b>	<b>7,702,602</b>	<b>7,773,604</b>
<b>PAYMENTS</b>					
Construction and reconstruction of roads and bridges . . . .	1,763,457	2,571,412	3,052,787	4,565,047	4,591,019
Maintenance . . . . .	1,204,243	1,190,902	1,325,329	1,306,922	1,258,856
Other works connected with transport . . . . .	2,935	14,659	18,028	36,162	19,001
Grants to local authorities, etc. . .	12,755	9,657	9,195	14,265	(b)117,461
Purchase, hire and maintenance of plant . . . . .	1,080,554	1,232,912	1,388,877	1,528,885	1,459,697
Other . . . . .	92,885	61,427	313,189	365,194	85,881
<b>Total . . . . .</b>	<b>4,156,829</b>	<b>5,080,969</b>	<b>6,107,405</b>	<b>7,816,475</b>	<b>7,531,915</b>

(a) Includes Commonwealth Employment Stimulation Grant of £366,956.  
of £103,456 under Commonwealth Employment Stimulation Grant.

(b) Include grants

8. *Northern Territory.*—Information relating to the length of roads in the Northern Territory may be found in Chapter V. Territories, of this Year Book (see p. 118).

9. *Summary of Roads used for General Traffic.*—(i) *Proclaimed or Declared Roads.* The table hereunder is a summary of the roads proclaimed or declared under the Acts of the several States relative to the operations of the central road authorities, and shows the lengths of various classes proclaimed or declared as at 30th June, 1962. The central road authority in each State assumes responsibility under the Act for the whole, or a proportion, of the cost of construction and/or maintenance of these roads, the extent varying from State to State and with the class and locality of the roads. Before proclamation of a main road, consideration is given, in general, to the following points:—availability of funds; whether the road is, or will be, within one of several classes of main trunk routes; whether the district is, or will be, sufficiently served by railways. Provision is also made in some States for the declaration of roads other than main roads. The absence of a particular class in any State does not necessarily imply that there are no roads within that State that might be so classified; the classes are restricted only to roads proclaimed or declared under the Acts. A further point to make is that, through various causes, e.g. insufficiency of funds, man-power or materials, etc., construction or maintenance may not keep pace with gazettals of mileages, and, therefore, the condition of a road may not match its status.

**PROCLAIMED OR DECLARED ROADS: LENGTHS, 30th JUNE, 1962**  
(Miles)

Class of road	N.S.W.	Vic.	Q'land (a)	S. Aust.	W. Aust.	Tas.	Total
State highways .. ..	6,493	4,498	8,247	} 8,188	3,542 {	1,156 666	} 67,985
Trunk roads .. ..	4,163	} 9,112	10,273				
Ordinary main roads ..	11,647		..				
<b>Total Main Roads ..</b>	<b>22,303</b>	<b>13,610</b>	<b>18,520</b>	<b>8,188</b>	<b>3,542</b>	<b>1,822</b>	<b>67,985</b>
Secondary roads .. ..	(b) 100	..	(c) 1,900	..	(d) 7,538	196	9,734
Developmental roads ..	3,083	..	230	..	23,197	16	26,526
Tourist roads .. ..	54	426	..	..	..	46	526
Other roads .. ..	..	(e) 470	..	..	..	(f) 135	605
<b>Total Other Roads ..</b>	<b>3,237</b>	<b>896</b>	<b>2,130</b>	<b>..</b>	<b>30,735</b>	<b>393</b>	<b>37,391</b>
<b>Grand Total .. ..</b>	<b>25,540</b>	<b>14,506</b>	<b>20,650</b>	<b>8,188</b>	<b>34,277</b>	<b>2,215</b>	<b>105,376</b>

(a) As at 30th June, 1961. (b) Metropolitan only. (c) Includes mining access roads, farmers' roads and tourist tracks. (d) Though financed by the Main Roads Department, these roads are under the control of local authorities. (e) Forest roads and by-pass roads. (f) Subsidized roads.

(ii) *Surface of Roads.* The following table represents an attempt to classify all the roads used for general traffic in Australia, at the latest dates available, according to States and Territories and to certain broad surface groups. The figures in the table for the States are obtained from the Deputy Commonwealth Statistician in each State, and are derived mainly from local government sources.

**ALL ROADS USED FOR GENERAL TRAFFIC: LENGTHS**  
(Miles)

Surface of roads	N.S.W. 30th June, 1960	Vic. 30th Sept., 1961	Q'land 30th June, 1962	S. Aust. 30th June, 1962	W. Aust. 30th June, 1962	Tas. 30th June, 1962	N. Terr. 30th June, 1962	A.C.T. 30th June, 1962	Total
Bitumen or concrete ..	18,476	21,633	11,016	5,614	9,850	2,052	1,386	335	70,362
Gravel, crushed stone or other improved surface ..	46,775	32,118	19,850	13,360	20,097	8,340	343	177	141,060
Formed only ..	26,966	22,576	41,265	15,326	41,283	} 1,501 {	1,543	86	} 323,601
Cleared only ..	37,535	25,500	48,985	28,293	23,088		9,654	..	
<b>Total ..</b>	<b>129,752</b>	<b>101,827</b>	<b>121,116</b>	<b>62,593</b>	<b>94,318</b>	<b>11,893</b>	<b>12,926</b>	<b>598</b>	<b>535,023</b>

10. *Aggregate Net Expenditure on Roads and Bridges in Australia.*—In most States, there are three classes of authorities concerned with roads and bridges, the State Government, the central road authority and numerous local government bodies. The Commonwealth Government, in addition to the grants it makes to the States for road purposes, is concerned with roads in the Northern Territory and the Australian Capital Territory and roads of access to Commonwealth property in the various States. Some information relating to Commonwealth grants to the States for road purposes and particulars of the expenditure on roads and bridges by local government bodies and the central road authorities are given in preceding sections of this chapter.

Most of these authorities may expend money directly on road construction or indirectly by means of grants and payments to other authorities. These indirect payments, if included in an aggregate, would duplicate expenditure; this together with the fact that some authorities are unable to supply separate information concerning their road expenditure, makes it difficult to compile precise statistics of aggregate expenditure on roads and bridges.

The information in the following table, which is partly estimated and which excludes the main indirect payments, provides an approximate measure of the aggregate net expenditure by all public authorities on roads and bridges in Australia during each of the years ended 30th June, 1958 to 1962. The figures cover expenditure from revenue and loan funds on the construction, reconstruction and maintenance of roads and bridges, and direct administration but not debt charges. Because of the difficulties associated with the indirect payments mentioned above, it is not possible to give separate net details for each authority.

**PUBLIC AUTHORITY NET EXPENDITURE ON ROADS AND BRIDGES**  
(£ million)

Year	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tasmania	Northern Territory and A.C.T.	Aust.
1957-58 ..	35	28	17	10	9	4	2	105
1958-59 ..	38	29	18	11	9	5	2	112
1959-60 ..	42	34	23	12	11	6	2	130
1960-61 ..	50	37	24	13	10	8	2	144
1961-62 ..	53	40	25	15	11	8	3	155

### § 5. Water Supply, Sewerage and Drainage

**NOTE.**—The information in this section relates primarily to the metropolitan areas and provincial cities and towns. For information on water supply and irrigation in rural areas see Chapter VIII. Water Conservation and Irrigation.

1. New South Wales.—(i) *General.* The two largest domestic water supply and sewerage systems are controlled by statutory boards, each consisting of a president and a vice-president appointed by the State Government, and five members elected by local councils. These are (a) the Metropolitan Water, Sewerage and Drainage Board, which administers the systems in the County of Cumberland, i.e. in Sydney and in the surrounding districts, and, in addition, has jurisdiction over territory extending along the South Coast beyond Wollongong to Lake Illawarra and Shellharbour, and (b) the Hunter District Water Board serving the Newcastle-Maitland-Cessnock areas. At Broken Hill, a similar board includes a representative of the mining companies. Other systems, apart from irrigation projects and water storage systems administered by the State Government, are controlled by county, municipal or shire councils.

(ii) *Water Supply*—to 30th June, 1962. (a) *Metropolitan.* The storage reservoirs of the metropolitan system, with a combined available capacity of 577,122 million gallons, drain catchment areas of 3,788 square miles (Warragamba, 3,412 square miles, Upper Nepean, 347 square miles, and Woronora, 29 square miles). The development of a water supply system on the Warragamba River was completed with the official opening of the Warragamba Dam in October, 1960. This dam, constructed in concrete, has a storage capacity of 452,505 million gallons. Its safe net draught is estimated to be 285 million gallons a day. A hydro-electric power station at the dam generates 50,000 kWh a day. At 30th June, 1962, there were 135 service reservoirs in use with a combined capacity of 616 million gallons. Rating for water for 1961-62 was 10d. in the £1 of assessed annual value and the charge for water measured by meters 2s. 9d. per 1,000 gallons.

(b) *Hunter District.* The water supply is drawn from two sources:—the Chichester Reservoir, with a storage capacity of about 5,000 million gallons and draining a catchment of 76 square miles, and the Tomago Sandbeds, which extend northerly along the coast towards Port Stephens. Service reservoirs and tanks distributed throughout the Water Supply District have a total storage capacity of 115 million gallons. Water rating for 1961–62 was 1s. 5½d. in the £1 on assessed annual value for occupied properties and 1s. 2½d. in the £1 for unoccupied properties. The price of water to domestic and industrial consumers is 2s. 9d. per 1,000 gallons.

(c) *Water Supplied, etc.* The following tables show, for the Metropolitan and Hunter District systems, the number of properties, the estimated population supplied, and other details.

## WATER SUPPLY, METROPOLITAN(a): SERVICES

Year	Improved properties for which water mains available	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of mains	Number of meters
					Per property	Per head of estimated population		
		'000	Mill. gals.	Mill. gals.	Gallons	Gallons	Miles	
1957–58 ..	561,934	2,148	183.6	67,016	331	86.1	6,055	340,364
1958–59 ..	579,900	2,212	198.9	72,624	348	91.3	6,246	362,130
1959–60 ..	598,893	2,264	200.9	73,529	335	88.7	6,450	382,180
1960–61 ..	620,944	2,341	219.1	79,988	353	93.6	6,664	411,731
1961–62 ..	634,139	2,481	220.7	80,556	348	89.0	6,945	430,588

(a) County of Cumberland, City of Greater Wollongong and Shellharbour Municipality.

## WATER SUPPLY, HUNTER DISTRICT(a): SERVICES

Year	Properties supplied	Estimated population supplied	Average daily consumption	Total consumption for year	Average daily consumption		Length of mains
					Per property	Per head of estimated population	
			Mill. gals.	Mill. gals.	Gallons	Gallons	Miles
1957–58 ..	78,954	r 266,628	29.5	10,753	373	r 110.5	1,410
1958–59 ..	81,398	r 274,881	28.2	10,281	346	r 102.5	1,439
1959–60 ..	84,497	r 285,346	28.6	10,474	339	r 100.3	1,460
1960–61 ..	86,032	r 290,530	29.7	10,854	346	r 102.4	1,483
1961–62 ..	87,792	296,502	31.7	11,555	361	106.8	1,512

(a) Newcastle, Maitland and Cessnock areas.

(iii) *Sewerage and Drainage—to 30th June, 1962.* (a) *Metropolitan.* Sydney and suburbs are served by three major sewerage systems and seven minor systems, consisting of six outfalls discharging directly into the Pacific Ocean, and four treatment works. In addition, five centres outside the metropolitan area (Camden, Campbelltown, St. Mary's, Port Kembla and Wollongong) are served by local treatment works.

Stormwater drainage channels under the control of the Metropolitan Water, Sewerage and Drainage Board at 30th June, 1962, were 178 miles long. Sewerage rating for 1961–62 was 9½d. in the £1 of assessed annual value, and drainage rating 1½d. in the £1.

(b) *Hunter District.* The main sewerage system serves the City of Newcastle and discharges into the Pacific Ocean at Merewether Gulf. There are also local treatment works at Maitland, Cessnock and some of the outlying districts.

Sewerage rates for 1961–62 were 1s. 0½d. in the £1 of assessed annual value of occupied lands and 9½d. in the £1 for unoccupied lands, and drainage rates (on certain areas served) 1½d. in the £1.



(c) *Particulars of Services.* The following table gives, for the Metropolitan system, details of sewerage services and stormwater drains.

### SEWERAGE AND DRAINAGE, METROPOLITAN(a): SERVICES

At 30th June—				Improved properties for which sewerage available	Estimated population served	Lengths of sewers	Length of stormwater channels
					'000	Miles	Miles
1958..	..	..	..	364,712	1,483	3,628	180
1959..	..	..	..	379,069	1,520	3,791	180
1960..	..	..	..	395,869	1,560	4,021	180
1961..	..	..	..	412,034	1,620	4,231	180
1962..	..	..	..	426,333	1,710	4,489	178

(a) County of Cumberland, City of Greater Wollongong and Shellharbour Municipality.

At 30th June, 1962, 61,362 premises had been connected to the Hunter District Water Board's sewerage system (Newcastle-Maitland-Cessnock areas). The total length of sewers under the Board's control was 852 miles, and the length of drains was 50 miles.

(iv) *Finances, Metropolitan and Hunter District Systems.* The following table shows the debt, revenue and expenditure of the Metropolitan Water, Sewerage and Drainage Board and the Hunter District Water Board for each of the services of water supply, sewerage and drainage during 1961-62, and for the three services combined for the years 1957-58 to 1960-61.

### WATER SUPPLY, SEWERAGE AND DRAINAGE, METROPOLITAN AND HUNTER DISTRICT: FINANCES

(£)

Year	Capital debt at 30th June	Revenue	Expenditure				Surplus
			Working expenses (a)	Interest and exchange	Debt redemption	Total	

#### METROPOLITAN(b)

1961-62—							
Water ..	116,031,669	12,392,935	5,159,425	5,137,464	2,092,930	12,389,819	3,116
Sewerage ..	52,693,840	7,034,672	3,887,790	2,241,180	898,601	7,027,571	7,101
Drainage ..	1,460,310	398,009	302,828	67,228	21,964	392,020	5,989
Total, 1961-62	170,185,819	19,825,616	9,350,043	7,445,872	3,013,495	19,809,410	16,206
1960-61	155,122,228	17,247,400	8,094,170	6,572,955	2,568,320	17,235,445	11,955
1959-60	140,992,864	15,662,131	7,739,582	5,721,738	2,194,286	15,655,606	6,525
1958-59	127,090,931	14,243,408	7,219,250	5,107,248	1,904,612	14,231,110	12,298
1957-58	116,624,719	13,071,578	6,841,455	4,534,653	1,680,320	13,056,428	15,150

#### HUNTER DISTRICT(c)

1961-62—							
Water ..	21,067,108	1,869,622	884,445	780,951	200,093	1,865,489	4,133
Sewerage ..	6,370,513	804,969	478,895	258,247	62,146	799,288	5,681
Drainage ..	266,136	58,557	32,089	11,428	2,265	45,782	12,775
Total, 1961-62	27,703,757	2,733,148	1,395,429	1,050,626	264,504	2,710,559	22,589
1960-61	25,336,784	2,378,860	1,265,923	866,746	236,432	2,369,101	9,759
1959-60	22,638,498	2,287,793	1,197,373	738,436	343,128	2,278,937	8,856
1958-59	20,053,737	2,133,500	1,179,652	671,151	246,480	2,097,283	36,217
1957-58	16,999,335	1,961,696	1,138,593	599,457	217,907	1,955,957	5,739

(a) Includes provision for renewals, long service leave, loss on exchange, etc. (b) County of Cumberland, City of Greater Wollongong, Shellharbour Municipality. (c) Newcastle-Maitland-Cessnock areas.

(v) *Country Water Supply and Sewerage Systems.* (a) *Local Government.* At 31st December, 1960, country water supply services were conducted or under construction by 52 municipalities, 80 shires and 5 county councils, and country sewerage services by 51 municipalities and 32 shires. The capital indebtedness of these schemes was £29,771,775 at 31st December, 1960, namely, £20,364,170 for water and £9,407,605 for sewerage. Debt of the municipalities amounted to £16,314,406, shires to £9,173,661 and county councils to £4,283,708. Government advances amounting to £481,700 are included in these figures. Aggregate income and expenditure amounted to £4,999,442 and £3,837,230, respectively, in 1960.

(b) *Other.* The water supply and sewerage services for Broken Hill are operated by a statutory board, the Broken Hill Water Board. Its capital indebtedness at 31st December, 1961, was £3,318,816. In 1961, income (excluding subsidies, State Government, £109,342 and mining companies, £323,942) amounted to £275,336 and expenditure (excluding debt redemption, £228,186) amounted to £480,865.

The following country water supply systems—South-West Tablelands, Junee and Fish River—are administered by the Department of Public Works. These supply water in bulk to municipalities and shires, the Railways Department, and other large consumers. Only a small quantity is sold direct to private consumers. The capital indebtedness of these systems was £6,248,139 at 31st December, 1961.

The Mulwala Water Supply and Sewerage Service was constructed as an urgent war-time work for the Commonwealth, and the Bethungra Water Supply System is administered by the Department of Public Works in conjunction with the Junee supply.

2. *Victoria.*—(i) *Melbourne and Metropolitan Board of Works.* (a) *General.* The Board consists of a Chairman and 51 Commissioners elected to represent the municipalities which lie wholly or partly within the metropolitan area. The Chairman is elected by the Commissioners for a four-year term. The principal functions of the Board are:—to control and manage the metropolitan water supply system; to provide the metropolitan area with an efficient main and general sewerage system; to deal with main drains and main drainage works; to control and manage the rivers, creeks and watercourses within the metropolitan area, and to carry out the functions of a permanent planning authority.

(b) *Water Supply.* There are six storage reservoirs serving the metropolitan area—Yan Yean, 7,233 million gallons (available for consumption, 6,649 million gallons); Toorourong, 60 million gallons; Maroondah, 6,289 million gallons (4,870 million gallons); O'Shannassy, 930 million gallons; Silvan, 8,853 million gallons (8,823 million gallons); and Upper Yarra, 45,400 million gallons (44,120 million gallons); total 68,765 million gallons (65,452 million gallons). Service reservoirs number 37, with a total capacity of 366 million gallons.

The water rate levied by the Board in 1961–62 was 8d. in the £1 on the net annual value of the properties served. The charge for water consumed in excess of the quantity which, at 2s. 0d. per 1,000 gallons, would equal the assessed water rates on each property, was 2s. 0d. per 1,000 gallons. The following table shows particulars of Melbourne metropolitan water supply services for the years 1957–58 to 1961–62.

WATER SUPPLY, MELBOURNE: SERVICES

Year	Number of houses supplied	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of aqueducts, etc., mains and reticulation	Number of meters
					Per house	Per head of estimated population		
		'000	Mill. gals.	Mill. gals.	Gallons	Gallons	Miles	
1957–58 ..	454,853	1,637	128.8	47,006	283	78.7	4,721	317,670
1958–59 ..	483,410	1,740	134.0	48,917	277	77.0	4,942	344,702
1959–60 ..	496,841	1,789	145.3	53,169	292	81.2	5,109	366,905
1960–61 ..	510,078	1,836	152.9	55,822	300	83.3	5,245	392,396
1961–62 ..	519,216	1,869	157.6	57,521	304	84.3	5,477	422,318

(c) *Sewerage and Drainage.* Particulars of sewerage and drainage services for 1957-58 to 1961-62 are shown below. The rate levied in 1961-62 in respect of sewerage was 1s. 2d. in the £1 on the net annual value of the property served. The drainage rate was 2d. in the £1.

#### SEWERAGE AND DRAINAGE, MELBOURNE: SERVICES

Year	Number of houses for which sewers are provided	Estimated population for which sewers are provided	Average daily pumping	Total sewage pumped for the year	Average daily pumping		Length of sewers, etc.	Length of main drains
					Per house	Per head of estimated population		
		'000	Mill. gals.	Mill. gals.	Gallons	Gallons	Miles	Miles
1957-58 ..	373,019	1,343	75.0	27,379	201.1	55.8	3,256	169
1958-59 ..	378,738	1,363	78.7	28,716	207.8	57.7	3,350	176
1959-60 ..	384,844	1,385	83.2	30,459	216.2	60.1	3,458	181
1960-61 ..	395,109	1,422	88.1	32,159	223.0	62.0	3,550	193
1961-62 ..	399,890	1,440	83.0	30,308	207.6	57.7	3,665	198

The metropolitan sewerage system consists of the main system (serving an area of 84,842 acres) and five subsidiary systems—the Sunshine system (serving an area of 2,118 acres), the Laverton system (serving an area of 108 acres), the Kew system (serving an area of 112 acres), the South-eastern system (serving an area of 3,318 acres in Cheltenham, Parkdale, Mentone and Mordialloc), and the Maribymong system (serving an area of 125 acres). The Metropolitan Sewage Farm, 26,811 acres in extent and situated about 24 miles south-west of Melbourne beyond the township of Werribee, serves to purify and dispose of approximately 98 per cent. of the sewage flow of the metropolis before its discharge into Port Philip Bay. The total capital cost (less depreciation) of the farm to 30th June, 1962, was £4,180,671. Revenue during 1961-62 amounted to £183,339, cost of sewage disposal to £250,355, trading expenses to £126,562, interest to £211,891, and net cost of sewerage purification to £405,469. These financial particulars are included in the sewerage items of the summary below.

(d) *Finances.* The following table provides for the year 1961-62 a summary of the financial operations of the water supply, sewerage and drainage services conducted by the Melbourne and Metropolitan Board of Works, and of the combined services for the years 1957-58 to 1960-61.

#### MELBOURNE AND METROPOLITAN BOARD OF WORKS: FINANCES

(£)

Service, etc.	Capital cost of works and buildings at 30th June(a)	Revenue	Expenditure				Surplus (+) or deficit (-)
			Working expenses	Interest and exchange	Debt redemption	Total	
Water ..	55,658,044	5,179,234	1,684,964	2,734,531	..	4,419,495	+ 759,739
Sewerage ..	47,738,145	4,769,880	1,533,886	2,194,618	..	3,728,504	+ 1,041,376
Drainage ..	9,437,944	750,738	506,014	347,123	..	853,137	- 102,399
General(b) ..	4,672,854	..	1,097,309	..	594,622	1,691,931	- 1,691,931
Total, 1961-62	117,506,987	10,699,852	4,822,173	5,276,272	594,622	10,693,067	+ 6,785
1960-61	106,667,945	9,157,740	4,021,508	4,724,808	530,679	9,276,995	- 119,255
1959-60	98,098,322	8,463,843	3,845,137	4,221,253	526,802	8,593,192	- 129,349
1958-59	88,466,516	7,564,879	3,471,915	3,681,159	402,969	7,556,043	+ 8,836
1957-58	79,439,722	6,962,750	3,485,745	3,287,070	170,507	6,943,322	+ 19,428

(a) Total loan indebtedness—1961-62, £107,919,380.

(b) Statutory and general expenditure not distributed over services.

(ii) *State Rivers and Water Supply Commission.* (a) *General.* Water supply and conservation throughout Victoria (except for the area controlled by the Melbourne and Metropolitan Board of Works) is the responsibility of the State Rivers and Water Supply Commission. The events leading to the establishment of the Commission, and its works in the spheres of irrigation, domestic and stock water supply to farms, drainage, flood protection and river improvement, have already been described in Chapter VIII.; this section is therefore confined to the Commission's functions in connexion with urban water supply and sewerage.

(b) *Water Supply.* At 30th June, 1962, the Commission provided a reticulated water supply from its own works to 136 cities and towns having a combined population of 203,000 persons.

The principal systems operated by the Commission serve part of the Mornington Peninsula—Dandenong area (about 93,000 people supplied); Bendigo, Castlemaine, etc. (56,000); and about 8,000 people in the Western District. In addition, 10,000 persons in a number of towns in the Bellarine Peninsula receive supply through a Commission-operated distributary system from headworks controlled by the Geelong Waterworks and Sewerage Trust.

Outside these areas, the Commission supplies mainly small towns in the north of the State, in areas where it also supplies farms with water for irrigation or domestic and stock purposes.

Capital expenditure at 30th June, 1962, net of redemption payments, was divided up as follows between the several systems:—Mornington Peninsula, £8,350,000; Bendigo, Castlemaine, £4,075,000; Bellarine Peninsula, £800,000; Otway System (Western District), £725,000; other, £1,550,000; total, £15,500,000.

In addition to the towns supplied by the Commission, there are approximately 553,000 people in 191 cities and towns throughout the State who get a reticulated water supply from works operated by local authorities.

All these authorities operate under the supervision of the State Rivers and Water Supply Commission, largely because the government subsidizes their capital expenditure. Most new works are financed from government loan funds, but in recent years some local authorities have been able to borrow money privately. In most cases, the local authority controls both headworks and distribution system, but a few large towns—serving about 50,000 people—draw their water from the State Rivers and Water Supply Commission and are concerned only with reticulation of the water. Together, therefore, the Commission and local authorities supply 329 urban centres containing more than 750,000 people. Very few towns of any importance are now without a reticulated water supply.

The following table presents the financial position in respect of town water supply at 30th June, 1962.

**TOWN WATER SUPPLY, VICTORIA: CAPITAL LIABILITY, 30TH JUNE, 1962**  
(£'000)

Particulars	Water supply provided by—		
	Local authorities	State Rivers and Water Supply Commission	Total
Government advances .. .. .	20,650	16,225	36,875
Private loans .. .. .	1,550	..	1,550
Total Expenditure .. .. .	22,200	16,225	38,425
Redemption and repayments .. .. .	1,500	725	2,225
Loan Expenditure Outstanding .. .. .	20,700	15,500	36,200
Borne by State .. .. .	4,300	8,200	12,500
Borne locally .. .. .	16,400	7,300	23,700

The proportion of loan capital borne by the State is much higher in the case of Commission undertakings than for towns supplied by local authorities. This is because most Commission undertakings have been developmental in nature. Besides interest on capital borne by it, the State pays the difference between three per cent. and the actual rate paid on practically all the capital carried locally. The total annual subsidy on country town water supply is currently about £850,000.

(c) *Sewerage.* With the exception of the town of Eildon whose sewerage system is controlled directly by the State Rivers and Water Supply Commission, the construction and management of sewerage works in Victoria's country cities and towns are the responsibility of local authorities supervised by the Commission. Except for the Geelong Waterworks and Sewerage Trust and the Latrobe Valley Water and Sewerage Board which have special Acts dealing with their activities, all sewerage authorities operate under the *Sewerage Districts Act*.

At 30th June, 1962, there were 44 cities and towns with sewerage systems in operation. These contained about 410,000 persons, approximately a third of the total number of residents outside the metropolitan area.

Expenditure on sewerage in Victorian country towns at 30th June, 1962, was approximately £18,750,000, of which some £15,000,000 had been advanced by private lenders. The annual State subsidy on country sewerage in Victoria is currently about £250,000, provided mainly in the form of subsidies on interest rates paid, along the same lines as for town water supply. Comparatively little capital is borne directly by the State.

(iii) *Geelong Waterworks and Sewerage Trust.* (a) *General.* The Geelong Waterworks and Sewerage Trust was constituted in 1908 and reconstituted under the *Geelong Waterworks and Sewerage Act* in 1910. It was further reconstituted in September, 1950, to include a government nominee (Chairman), and provision was made for a commissioner to be elected by the ratepayers of the Shire of Corio, making a total of seven commissioners. The amount of loan money which may be raised is limited to £6,500,000 for water supply undertakings, and £5,000,000 for sewerage undertakings. The population supplied is estimated by the Trust at 96,723 persons. This and other general information relates to 30th June, 1962.

(b) *Water Supply.* The Trust operates two systems for gathering and storing water, in both systems the water being brought over fifty miles to Geelong. There are seven storage reservoirs and eleven service basins whose total storage capacity is 8,640 million gallons. The length of water mains and reticulation is 517 miles. The total expenditure on water supply to 30th June, 1962, was £5,045,085. General fund expenditure for 1961-62 comprised £156,078 for working expenses and £324,805 for interest, redemption and reserves, while revenue amounted to £501,304. The sinking fund appropriations at June, 1962, amounted to £303,555. The replacement and contingencies reserve amounted to £335,785. There is a water rate of 1s. 7d. in the £1 (with minima of 10s. for vacant land and £1 for tenements) on the net annual value of ratable properties.

(c) *Sewerage Works.* The sewerage scheme consists of a main outfall sewer to the ocean and 258.8 miles of main and reticulation sewers. The sewerage area is 11,851 acres, and the number of buildings connected within the sewered areas is 21,535. The total expenditure on sewerage works to 30th June, 1962, was £2,268,824. The revenue in 1961-62 amounted to £256,885, and the general fund expenditure comprised £93,297 on working expenses and £143,322 on interest, redemption and reserves. Sinking fund appropriations at June, 1962, were £192,660. Replacement and contingencies reserve amounted to £361,421. A general rate of 1s. 4d. in the £1 is levied on the net annual value of ratable properties.

(iv) *The Ballarat Water Commissioners and the Ballarat Sewerage Authority.* (a) *General.* The body known as the Ballarat Water Commissioners was constituted on 1st July, 1880, and the Ballarat Sewerage Authority on 30th November, 1920. The members of the Water Commissioners constitute the Sewerage Authority. The Commissioners number nine, three (one of whom is chairman) being appointed by the Government, four being elected by the Council of the City of Ballarat, one being elected by the Councils of the Borough of Sebastopol and the Shires of Buninyong and Grenville and one being elected by the Councils of the Shires of Bungaree and Ballarat. General and financial information given herein relates to the year ended 31st December, 1962.

(b) *Water Supply.* The water supply district comprises an area of about 65 square miles, containing a population of about 59,000. The total storage capacity of the seven reservoirs is 5,606 million gallons and the catchment area is 24,182 acres.

The capital cost of construction of the waterworks was £2,720,483 to 31st December, 1962. The liabilities amounted to £1,662,354 at 31st December, 1962, including loans due to the Government totalling £1,529,376. The revenue for the year 1962 was £190,632. Working expenses during 1962 amounted to £107,054 and interest and other charges to £81,336. A water rate of 1s. 1d. in the £1 on the net annual valuation is levied, with a minimum charge of £1 10s. per annum on any ratable property.

(c) *Sewerage.* The Ballarat sewerage district comprises the City of Ballarat and parts of the Shires of Ballarat, Bungaree and Grenville and the Borough of Sebastopol. There are more than 170 miles of sewers. The capital cost of sewerage construction works to 31st December, 1962, was £1,681,978. Two hundred and eighteen sewered areas had been declared as at 31st December, 1962. Assessments in the sewerage district numbered 19,621, while those in sewered areas numbered 14,866. There were 12,833 buildings connected.

The scheme is financed by debenture-issue loans from various financial institutions. The liabilities on account of loans secured for construction at 31st December, 1962, amounted to £1,376,681; redemption payments at that date totalled £329,892. House connexions financed by the Authority numbered 3,843. Revenue during 1962 amounted to £147,186, and expenditure, which included £88,188 on interest and redemption, was £146,299.

A sewerage rate of 1s. 4d. in the £1 on the net annual valuation is levied, with a minimum charge of £3 on any ratable property.

(v) *Latrobe Valley Water and Sewerage Board.* (a) *General.* The Latrobe Valley Water and Sewerage Board was constituted on 1st July, 1954. The Board consists of seven members, namely:—two Government nominees (one of whom is Manager and also Board Chairman), three members elected by water supply, sewerage and river improvement authorities within the Latrobe Valley, and one representative each of the State Electricity Commission of Victoria and the Gas and Fuel Corporation of Victoria.

(b) *Water Supply.* The Board is empowered to construct water supply works within the Latrobe Valley, but at present its main construction activities are confined to the central industrialized areas, particularly around the towns of Morwell and Traralgon. At 30th June, 1962, work was virtually completed on a reservoir with a capacity of 7,000 million gallons on the Upper Tyers River and a 60-inch diameter pipeline connecting that reservoir to the existing distribution mains. The capital cost of construction of the water works was £4,512,300 to 30th June, 1962. Liabilities amounted to £4,944,523 including loans due to the Government totalling £4,817,250. Revenue for the year was £124,046. Working expenses during 1961–62 amounted to £60,918 and interest and other charges to £57,444. The Board does not strike a rate, but supplies consumers, including local water supply authorities, by measure. The quantity supplied during the year ended 30th June, 1962, was 3,005 million gallons.

(c) *Sewerage.* The sewerage system consists of a main outfall sewer, about 50 miles in length. Wastes conveyed consist mainly of industrial wastes, such as paper wastes and gasification wastes, together with small quantities of domestic sewage. The capital cost of the sewerage construction works to 30th June, 1962, was £2,426,759. Liabilities amounted to £2,844,866 including loans due to the Government totalling £2,600,545. Revenue in 1961–62 was £113,607 and expenditure comprised £72,452 working expenses and £69,133 interest and other charges. No sewerage rate is levied, but a charge is made by measure for wastes both from industries and public authorities.

(vi) *Other Sewerage Authorities.* At 30th June, 1962, 66 other sewerage authorities had been constituted under the provisions of the *Sewerage Districts Acts* and systems were in operation in 42 districts.

3. *Queensland.*—(i) *Brisbane City Council—to 30th June, 1962.* (a) *General.* This organization conducts the water supply and sewerage systems of the City of Brisbane. Prior to 1928, water and sewerage activities had been controlled by the Metropolitan Water and Sewerage Board, but were then absorbed by the Brisbane City Council, which also supplies, in bulk, the whole of the water used by the City of Ipswich and the major portion of that used by the City of Redcliffe. Since September, 1960, Redcliffe has supplemented its supply from that of the Pine Rivers Shire Council.

(b) *Water Supply.* Water storage facilities comprise the following (available capacities are shown in parentheses):—Somerset Reservoir, 200,000 million gallons (55,000 million gallons); Lake Manchester, 5,806 million gallons (5,720 million gallons); Brisbane River, 543 million gallons (484 million gallons); Pure Water Reservoir, Holt's Hill, 8.3 million gallons (8.3 million gallons); Enoggera Reservoir, 1,000 million gallons (600 million gallons); Gold Creek Reservoir, 407 million gallons (400 million gallons). There are 16 service reservoirs with a capacity of approximately 41 million gallons. The Somerset reservoir is a dual purpose project with a designed total holding capacity of 200,000 million gallons, 55,000 million gallons to be for water storage and 145,000 million gallons for flood mitigation. Water rating at 30th June, 1962, was 4½d. in the £1 on the unimproved valuation of all ratable land, with a minimum charge of £8 for the year for each assessment. The following table is a summary of operations of the complete Brisbane City Council system (Brisbane, Ipswich and Redcliffe) for the years 1957–58 to 1961–62.

#### WATER SUPPLY, BRISBANE(a): SERVICES

Year	Services connected	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of trunk and reticulation mains
					Per service	Per head of estimated population	
			Mill. gals.	Mill. gals.	Gallons	Gallons	Miles
1957–58 .. ..	157,750	575,212	41.0	14,970	260	71.3	1,995
1958–59 .. ..	163,336	594,124	41.4	15,127	254	69.7	2,059
1959–60 .. ..	168,687	615,293	44.3	16,214	272	73.1	2,137
1960–61 .. ..	171,820	626,470	46.8	17,100	273	74.8	2,196
1961–62 .. ..	178,279	649,970	45.3	16,538	254	69.7	2,284

(a) Includes Ipswich and Redcliffe.

(c) *Sewerage.* The sewage treatment works is situated at Luggage Point at the entrance to the Brisbane River. Sewerage rating at 30th June, 1962, was 3½d. in the £1 on the unimproved valuation of each portion of land with a minimum charge of £8 10s. for the year. The following table is a summary of operations of the Brisbane sewerage scheme for the years 1957–58 to 1961–62.

#### SEWERAGE, BRISBANE: SERVICES

Year					Premises connected	Estimated population served	Total sewage pumped for the year	Length of main, branch, reticulation, etc., sewers
							Mill. gals.	Miles
1957–58 .. ..	..	..	..	..	55,846	206,630	5,316	731
1958–59 .. ..	..	..	..	..	58,616	216,879	6,043	757
1959–60 .. ..	..	..	..	..	58,942	218,185	5,626	803
1960–61 .. ..	..	..	..	..	62,781	232,290	5,222	853
1961–62 .. ..	..	..	..	..	67,407	249,406	5,808	906

(d) *Finances.* The following table shows particulars of the finances of the water supply and sewerage undertakings of the Brisbane City Council for the years 1957-58 to 1961-62.

## WATER SUPPLY AND SEWERAGE, BRISBANE: FINANCES

(£ )

Service and year	Gross capital cost to 30th June	Revenue	Expenditure			Surplus(+) or deficit(-)
			Working expenses	Interest, redemption, etc., charges	Total (a)	
Water supply—						
1957-58 ..	13,560,777	1,728,751	875,248	569,267	1,577,222	+ 151,529
1958-59 ..	14,688,559	1,786,978	907,186	629,422	1,736,230	+ 50,748
1959-60 ..	16,369,241	2,149,216	984,213	793,263	2,115,298	+ 33,918
1960-61 ..	18,437,170	2,315,102	1,044,524	879,712	2,308,682	+ 6,420
1961-62 ..	19,995,220	2,481,687	1,129,904	974,898	2,381,291	+ 100,396
Sewerage—						
1957-58 ..	13,874,524	773,337	244,774	421,004	761,118	+ 12,219
1958-59 ..	14,434,390	807,399	254,445	444,562	806,862	+ 537
1959-60 ..	15,556,266	907,148	252,211	460,896	839,761	+ 67,387
1960-61 ..	16,837,552	982,345	282,035	489,597	964,578	+ 17,767
1961-62 ..	17,953,552	1,035,872	296,234	564,903	1,045,578	- 9,706

(a) Total, including other expenditure.

(ii) *Country Towns.* (a) *Water Supply.* In addition to the City of Brisbane, there were at 30th June, 1961, 160 cities and towns in Queensland provided with water supply systems controlled by municipal and shire councils.

(b) *Sewerage Systems.* At 30th June, 1961, there were 26 cities or towns in addition to Brisbane with sewerage systems, and sewerage schemes were in course of construction at 13 other cities or towns.

(c) *Finances.* The receipts (other than loan and loan subsidy) of water undertakings controlled by the cities and towns referred to above amounted to £2,441,772 in 1960-61. Expenditure amounted to £2,584,001, including £1,114,346 for debt charges. In addition, expenditure from loans and loan subsidy amounted to £2,850,451. Finances of sewerage undertakings are incorporated in council general funds and are not available separately.

4. *South Australia.*—(i) *General.* The water supply and sewerage systems in this State were constructed mainly, and are maintained, by the Engineering and Water Supply Department, under the control of the Minister of Works. Works controlled by the Department are the Adelaide, Barossa, Beetaloo, Bundaleer, Moorook, Tod River, Warren, Yorke Peninsula and other country water districts systems, the Morgan-Whyalla water supply system, the metropolitan and country sewerage systems, the Metropolitan Flood Waters Scheme and works on the River Murray constructed under the River Murray Waters Agreement. Several water supply schemes on the Murray River are operated by the Department of Lands in conjunction with its irrigation works, and supplies to Woomera and Leigh Creek coalfield are controlled by the operating authorities. The following tables show particulars of metropolitan and country waterworks combined.



## WATERWORKS, SOUTH AUSTRALIA: SERVICES

Year	Assessments(a)		Area of districts supplied (a)	Capacity of reservoirs, tanks, etc.	Length of mains	Number of meters
	Number	Annual value				
		£	Acres	Mill. gals.	Miles	
1957-58..	262,430	26,810,750	12,983,539	33,949	8,260	180,815
1958-59..	269,825	28,361,294	13,003,305	33,954	8,537	197,914
1959-60..	289,235	31,617,930	13,037,312	33,957	9,016	213,024
1960-61..	319,108	40,593,447	13,118,635	35,405	9,292	232,072
1961-62..	338,636	42,702,029	13,153,869	46,328	9,634	247,972

(a) Excludes Morgan-Whyalla Water Supply—water sold by measure.

## WATERWORKS, SOUTH AUSTRALIA: FINANCES

(£ )

Year	Invested capital to 30th June	Revenue	Expenditure			Deficit
			Working expenses (a)	Interest	Total	
1957-58..	49,161,026	3,028,193	2,944,648	1,740,157	4,684,805	1,656,612
1958-59..	54,301,234	3,106,348	2,768,406	1,933,850	4,702,256	1,595,908
1959-60..	59,636,914	3,386,221	3,391,892	2,205,764	5,597,656	2,211,435
1960-61..	65,183,386	4,284,394	3,188,385	2,373,567	5,561,952	1,277,558
1961-62..	73,115,312	4,532,577	4,194,970	2,694,196	6,889,166	2,356,589

(a) Includes debt redemption.

(ii) *Adelaide Waterworks.* At 30th June, 1962, the Adelaide waterworks supplied a district of 193,923 acres. The capacity of reservoirs and storage tanks was 25,427 million gallons and there were 2,561 miles of mains. Water is also drawn from the 11,300 million gallon reservoir at South Para in the Barossa Water District.

The Mannum-Adelaide pipeline conveys water from the River Murray to Adelaide at a rate of up to 66 million gallons a day. Water is delivered to the River Torrens or, by further pumping, to the River Onkaparinga. With further development, the main will operate as a closed system connected to the metropolitan reticulation. The pipeline supplements the Warren system and other country areas.

## ADELAIDE WATERWORKS: FINANCES

(£ )

Year	Invested capital to 30th June	Revenue	Expenditure			Surplus (+) or Deficit (-)
			Working expenses (a)	Interest	Total	
1957-58..	25,900,153	2,045,625	1,612,284	915,721	2,528,005	- 482,380
1958-59..	28,719,570	2,101,768	1,437,861	1,032,464	2,470,325	- 368,557
1959-60..	32,074,743	2,311,402	1,919,538	1,136,373	3,055,911	- 744,509
1960-61..	35,078,981	2,958,675	1,731,561	1,218,096	2,949,657	+ 9,018
1961-62..	38,627,084	3,151,125	2,377,181	1,368,822	3,746,003	- 594,878

(a) Includes debt redemption.

(iii) *Adelaide Metropolitan Sewerage.* The Adelaide metropolitan sewerage system, comprising the Adelaide, Glenelg, Port Adelaide and Salisbury-Elizabeth areas of 146 square miles in all, includes a sewage farm, and treatment works at Glenelg and Port Adelaide. Work is starting on a new large treatment works at Bolivar. Financial and other particulars for 1957-58 to 1961-62 are shown hereunder.

## ADELAIDE METROPOLITAN SEWERAGE: SUMMARY

Year	Length of sewers	Number of connexions	Invested capital to 30th June	Revenue	Expenditure			Surplus
					Working expenses (a)	Interest	Total	
	miles		£	£	£	£	£	£
1957-58 ..	1,411	149,104	9,213,112	1,393,260	653,810	309,145	962,955	430,305
1958-59 ..	1,444	154,636	10,437,696	1,471,067	685,104	349,312	1,034,416	436,651
1959-60 ..	1,471	160,407	11,305,495	1,576,769	676,660	401,009	1,077,669	499,100
1960-61 ..	(b) 1,598	173,753	13,376,362	2,060,534	887,921	479,011	1,366,932	693,602
1961-62 ..	(b) 1,659	179,918	14,544,885	2,211,011	913,724	524,376	1,438,100	772,911

(a) Includes debt redemption. 1960-61; 115 miles in 1961-62).

(b) Includes sewers in the Salisbury-Elizabeth area (93 miles in

(iv) *Country Sewerage Schemes.* Sewerage schemes are operating at Port Lincoln and Naracoorte. At Port Lincoln, there are 26.5 miles of sewer with an ocean outfall. At June, 1962, there were 706 connexions. The Naracoorte system has a treatment works, covers 2.56 square miles, and comprises 26.5 miles of sewer with 563 connexions.

(v) *Country Water Supply.* Water districts systems at 30th June, 1962, comprised an area of 12,959,946 acres. Supply came from reservoirs having a total capacity of 20,901 million gallons, from the River Murray and from underground sources.

Apart from local supplies, water from the River Murray comes from branches of the Mannum-Adelaide main and from the Morgan-Whyalla main.

The principal areas of underground supplies are in the south-east of the State, where water from the Murray Basin can be had at moderate depths or from lakes, and from sand beds on Eyre Peninsula. In the year 1961-62, supplies made to Mount Gambier, Naracoorte and other towns amounted to 983 million gallons, and the Uley-Wanilla and Lincoln Basins contributed 805 million gallons to the Tod River Water District.

## COUNTRY WATERWORKS, SOUTH AUSTRALIA: FINANCES

(£ )

Year	Invested capital to 30th June	Revenue	Expenditure			Deficit
			Working expenses (a)	Interest	Total	
1957-58 ..	23,260,873	982,568	1,332,364	824,436	2,156,800	1,174,232
1958-59 ..	25,581,664	1,004,580	1,330,545	901,386	2,231,931	1,227,351
1959-60 ..	27,562,171	1,074,819	1,472,354	1,069,391	2,541,745	1,466,926
1960-61 ..	30,104,405	1,325,719	1,456,824	1,155,471	2,612,295	1,286,576
1961-62 ..	34,488,228	1,381,452	1,817,789	1,325,374	3,143,163	1,761,711

(a) Includes debt redemption.

(vi) *Morgan-Whyalla Water Supply Scheme.* This scheme, which has 223 miles of main, was officially opened on 31st March, 1944, the capital invested to 30th June, 1961, being £2,687,707. Particulars of the scheme, where applicable, are included in the tables of the combined waterworks in (i) above. Apart from supplying Whyalla, the main has been used to allow expansion of reservoir supplies in the northern agricultural area of the State, and to meet new demands caused by industrial growth at Whyalla, duplication of the main has commenced. During 1961-62, water used from the scheme amounted to 3,169 million gallons. Revenue was £489,518, working expenses £359,455, interest charges £151,865 and deficit £21,802.

5. *Western Australia.*—(i) *General.* The water supply, sewerage and drainage systems of Western Australia are principally under the management of two State Government Departments, namely, the Metropolitan Water Supply, Sewerage and Drainage Department, having as its territory the metropolitan area centred on Perth and extending to Kwinana and Serpentine in the south, Sorrento in the north and Greenmount on the east, and the Public Works and Country Water Supply Department, which controls the Comprehensive Water Supply Scheme (covering the Goldfields and Agricultural Areas Water Supply and the Great Southern Towns Water Supply) as well as supplies, from local sources, to 83 country towns not included in the scheme. Both Departments are administered under the portfolio of the Minister for Works and Water Supplies. (See also Chapter VIII. Water Conservation and Irrigation, of this Year Book, pp. 296-8.)

(ii) *Metropolitan Water Supply, Sewerage and Drainage.* (a) *General.* The sources of the metropolitan water supply are the Serpentine Dam, the Canning Dam, the Churchman Brook Reservoir, the Victoria Reservoir and the Wungong Brook Diversion Weir. The supply from these sources is supplemented as necessary from a number of artesian bores and from a pipeline link with Mundaring Weir. The largest reservoir, the Serpentine Dam, has a capacity of 39,000 million gallons. There are three treatment works included in the Department's sewerage system. The largest of these, Subiaco treatment works, serves Perth and suburbs.

(b) *Water Supply.* The following table shows particulars of water supply services for 1957-58 to 1961-62.

#### METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA: SERVICES

Year	Number of services (a)	Estimated population supplied (a)	Average daily consumption	Total consumption for year	Average daily consumption		Length of mains	Number of meters
					Per service (b)	Per head of estimated population (b)		
			Mill. gals.	Mill. gals.	Gallons	Gallons	Miles	
1957-58 ..	122,159	404,390	47.5	17,337	394	119.2	1,891	85,896
1958-59 ..	125,761	417,770	49.5	18,061	399	120.2	1,991	92,495
1959-60 ..	129,956	431,600	(c) 33.7	(c) 12,335	(c) 263	(c) 79.5	2,072	97,002
1960-61 ..	133,647	446,000	49.3	18,015	374	112.3	2,137	103,969
1961-62 ..	137,960	460,730	50.6	18,492	373	111.6	2,179	116,610

(a) Figures relate to 30th June.  
restrictions in force for 180 days.

(b) Calculated from averages for the year.

(c) Water

Water rating for 1961-62 was 1s. in the £1 on annual valuation on land used for residential purposes and 1s. 6d. in the £1 on annual valuation on land not so used.

(c) *Sewerage and Main Drainage.* Some particulars of the metropolitan sewerage and main drainage services for 1957-58 to 1961-62 are shown below.

**METROPOLITAN SEWERAGE AND MAIN DRAINAGE, WESTERN AUSTRALIA:  
SERVICES**

Year	Houses connected	Estimated population served	Length of sewers	Length of main drains
			Miles	Miles
1957-58 .. .. .	63,969	253,800	713	66
1958-59 .. .. .	64,944	257,500	714	67
1959-60 .. .. .	65,781	260,600	719	69
1960-61 .. .. .	66,664	264,000	724	72
1961-62 .. .. .	67,378	239,110	736	77

Sewerage rating for 1961-62 was 1s. 9d. in the £1 on annual valuation, while metropolitan main drainage rating was 4d. in the £1.

(d) *Finances.* The following table shows particulars of the finances of the Western Australian Metropolitan Water Supply, Sewerage and Drainage Department.

**METROPOLITAN WATER SUPPLY, SEWERAGE AND MAIN DRAINAGE  
WESTERN AUSTRALIA: FINANCES**

(£)

Service and Year	Capital cost to 30th June	Revenue	Expenditure			Surplus (+) or deficit (-)
			Working expenses	Interest and debt redemption	Total	
<b>Water supply—</b>						
1957-58 ..	15,283,093	1,260,873	617,754	658,876	1,276,630	- 15,757
1958-59 ..	17,123,762	1,338,917	637,427	744,624	1,379,051	- 40,134
1959-60 ..	18,715,358	1,206,823	671,009	794,160	1,465,169	- 258,346
1960-61 ..	20,256,673	1,730,433	839,876	879,902	1,719,778	+ 10,655
1961-62 ..	22,156,248	1,803,303	772,501	988,140	1,760,641	+ 42,662
<b>Sewerage—</b>						
1957-58 ..	6,108,598	698,734	333,039	306,545	639,584	+ 59,150
1958-59 ..	6,453,517	735,244	401,175	310,450	711,625	+ 23,619
1959-60 ..	6,915,604	772,012	420,391	319,817	740,208	+ 31,804
1960-61 ..	7,643,368	934,190	505,425	361,706	867,131	+ 67,059
1961-62 ..	8,301,678	938,372	525,136	446,718	971,854	- 33,482
<b>Main drainage—</b>						
1957-58 ..	1,104,103	80,431	29,325	49,467	78,792	+ 1,639
1958-59 ..	1,350,083	88,846	40,684	55,090	95,774	- 6,928
1959-60 ..	1,616,772	93,013	48,867	69,831	118,698	- 25,685
1960-61 ..	1,771,641	113,805	49,970	78,822	128,792	- 14,987
1961-62 ..	1,974,787	120,190	63,075	90,251	153,326	- 33,136

(iii) *Country Water Supplies.* Information concerning country water supplies is included in Chapter VIII. Water Conservation and Irrigation, of this Year Book (see p. 297).

6. *Tasmania.*—(i) *Waterworks.* At the end of 1960-61, there were 96 municipally operated waterworks in Tasmania. The capacity of the reservoirs was 2,225 million gallons, the estimated population served was 277,000 and the number of properties was 87,900. Two regional schemes operated by the State Government supply bulk water to several municipalities, augmenting supplies for an estimated population of 49,000 and 14,000 properties.

(ii) *Sewerage*. At the end of 1961-62, there were 21 municipal sewerage schemes in operation in Tasmania. They served an estimated population of 179,000 and the number of tenements served was 47,700.

7. *Northern Territory*.—Information relating to water supply in the Northern Territory may be found in Chapter VIII. Water Conservation and Irrigation (*see p. 300*).

8. *Australian Capital Territory*.—The water supply, sewerage and drainage systems in the Australian Capital Territory are under the control of the Commonwealth Department of Works. The sources of the water supply are:—Cotter Dam (capacity 967 million gallons) and Bendora Dam (2,360 million gallons). Six pumps are capable of pumping approximately 20 million gallons daily.

The total population in the Australian Capital Territory served was 65,500, which during 1961-62 consumed 3,115 million gallons of water. The number of water meters at 30th June, 1962, was 13,516.

In addition, during 1961-62 the Canberra water supply system supplied 239 million gallons of water to Queanbeyan, New South Wales. The total length of water lines at 30th June, 1962, was 282 miles.

The sewerage system for Canberra and suburbs consists of a treatment works and 214 miles of sewerage line (30th June, 1962). There were also 238 miles of stormwater lines.

## § 6. Harbour Boards and Trusts

NOTE.—The number and net tonnage of vessels which entered the major ports in each State during the years 1960-61 and 1961-62 are shown in Chapter XIV. Transport and Communication (*see p. 580*). Particulars of overseas and interstate cargo discharged and shipped during 1961-62 are shown on page 582 of the same chapter.

1. *New South Wales*.—(i) *Maritime Services Board of New South Wales*. (a) *General*. The Maritime Services Board of New South Wales is a corporate body of seven Commissioners comprising three full-time members and four part-time members representing shipping and other interests. The Board was constituted on 1st February, 1936, under the *Maritime Services Act 1935*, to co-ordinate the port and navigation services of the State, which had previously been administered by the Sydney Harbour Trust and by the State Department of Navigation.

The Board exercises general control over intra-state shipping, including the survey and certification of vessels, the licensing of harbour craft, and the examination and issue of certificates to officers. It is responsible for the provision of pilotage services, lights, beacons, buoys and other port facilities, imposes and collects rates and charges on goods and vessels, and is vested with the general control and management of the navigable waters and ports within the State.

At the Ports of Sydney, Newcastle, and Botany Bay, the Board is also responsible for the provision of adequate wharfage and channels, and carries out all construction, maintenance and dredging work. At other ports of New South Wales, such work is undertaken by the Department of Public Works.

(b) *Finances*. The implementation of the *Maritime Services (Amendment) Act 1960*, as from 1st May, 1961, resulted in some marked changes in the Board's accounting system. The amendment to the Act provided for a new fund known as the Maritime Services Board Fund to be established to replace the Sydney Harbour Trust Fund. All revenue earned by the Board at the Ports of Sydney, Newcastle and Botany Bay, with the exception of that earned from pilotage and navigational services, is now credited to the Maritime Services Board Fund, and all revenue expenditure incurred at the three ports is drawn from that Fund.

The following table shows particulars of the finances of the Board in respect of the Ports of Sydney, Newcastle and Botany Bay.

**MARITIME SERVICES BOARD FUND: FINANCES OF THE PORTS OF SYDNEY, NEWCASTLE AND BOTANY BAY**

(£)

Year	Revenue				Expenditure			Surplus
	Wharfage and transhipment rates	Tonnage rates and berthing charges	Other charges	Total	Administration and maintenance	Interest, debt redemption, exchange, etc.	Total (a)	
1960-61	3,130,441	631,432	927,729	4,689,602	2,565,141	2,081,110	4,646,251	43,351
1961-62	4,654,234	699,557	1,292,632	6,646,423	3,756,694	2,857,210	6,613,904	32,519

(a) Excludes capital expenditure but includes transfer to the Renewals Fund Reserve Account, 1960-61 £1,025,000, 1961-62 £1,375,000.

(c) *Port of Sydney.* The entrance to Sydney Harbour, the principal port of New South Wales, is nearly a mile wide, and the depth of its navigable channel is not less than 80 feet. Between the entrance, known as "The Heads", and the Harbour proper, a distance of four miles, there are two separate channels, each 700 feet wide, the Western Channel not less than 42 feet deep (low water ordinary spring tide) and the Eastern Channel 41 feet deep. The foreshores, which have been reduced by reclamations, are 152 miles in length, and the total area of the port is 13,600 acres, or 21 square miles, of which about one-half has a depth of 30 feet or more at low water ordinary spring tide. The mean range of tides is 3 feet 6 inches.

The wharves are situated close to the business centre of the city, about four or five miles from the Heads. At present, there are three dolphin berths each 550 feet long, and 100 effective commercial cargo berths with a total length of 46,007 feet controlled by the Board. Accommodation for harbour craft amounts to 3,355 feet, while the length of other berths including oil and private wharves totals 28,004 feet. Depth of water at wharves is up to 40 feet. Special facilities for the storage and handling of staple products such as wheat, wool, etc., are provided, and modern plant has been installed for replenishing ships' bunkers with oil or coal.

Docking facilities are available for the largest vessel afloat. The Captain Cook Graving Dock ranks amongst the largest graving docks in the world, being 1,139 feet by 147 feet 7½ inches with a depth of 45 feet 2 inches over the sill at high water. There are also several smaller dry docks and floating docks in the port.

(d) *Port of Newcastle.* As from 1st May, 1961, the Maritime Services Board of New South Wales became the single authority for the Port of Newcastle. This was brought about by the implementation of the *Maritime Services (Amendment) Act 1960*, which resulted in the Board's jurisdiction being extended to include the operation of the coal loading equipment formerly vested in the Department of Railways and the dredging, together with the maintenance and construction of wharves and other port facilities, which had been the responsibility of the Department of Public Works.

An Advisory Committee consisting of eight members, appointed by the Governor, assists the Board in matters associated with the operation of the port. It is primarily a coal-loading port, and the proximity to the coal fields has led to the establishment of important industries, including iron and steel works, in the district. Facilities are available for the shipment of wool, wheat and frozen meat, and a wharf is available for timber.

The area used by shipping is about 570 acres, excluding the entrance to the harbour and the inner basin, which together cover an area of 162 acres. The width of the harbour at the entrance is 1,500 feet, and the navigable channel, with a depth of 25 feet 6 inches at low water, is 350 feet wide. Wharfage accommodation amounts to approximately 13,700 feet, including about 2,700 feet of privately owned wharfage. There are also several dolphin berths available for tie-up purposes. A floating dock of 15,000 tons capacity is available at the port.

(e) *Botany Bay.* The Maritime Services Board of New South Wales is the administrative and controlling authority. The port is primarily a discharging centre for the oil refinery at Kurnell, near Sydney, and two berths are available as well as tanker mooring buoys. The entrance to the Bay is approximately  $1\frac{1}{4}$  miles wide, with a minimum depth of about 36 feet in the dredged swinging basin.

(f) *Port Kembla.* As from 3rd May, 1948, the Maritime Services Board assumed the administration and navigational control of Port Kembla, which had previously been administered by the New South Wales Department of Public Works. The Department, however, continues to be the constructing authority in respect of works, dredging and maintenance. An Advisory Committee consisting of eight members appointed by the Governor has been formed to assist the Board in the operation of the port. It has an area of approximately 330 acres, with depths ranging from 20 to 50 feet (low water ordinary spring tide), and wharfage accommodation totalling 6,800 feet has been provided for large ocean-going vessels. No cargo sheds are available, as the nature of trade at the port does not call for the provision of sheltered storage accommodation at the berths. It is the port of the southern coalfields and for the expanding industrial area in and about Wollongong. The developmental programme for Port Kembla includes the construction of an inner harbour to provide wharfage for the steelworks in addition to a modern fast-loading coal berth and general cargo berths.

The first stage of the inner harbour basin was opened to shipping on 28th November, 1960. Present accommodation is 1,175 feet of wharfage, with 36 feet (low water ordinary spring tide) of water, alongside. Width in the entrance to the inner harbour basin is 400 feet.

(g) *Other Ports.* In addition to the ports of Sydney, Newcastle, Port Kembla and Botany Bay, the Board controls 29 outports along the coastline of 609 miles. The shipping trade of these outports is relatively small.

(ii) *Port Charges.* The port charges payable in respect of shipping and ships' cargoes in New South Wales are imposed by the Commonwealth Government in terms of the *Light-houses Act* and the *Navigation Act*, and by the State authorities under the *Navigation Act* of New South Wales, the *Harbour and Tonnage Rates Act*, and the *Sydney Harbour Trust Act*. Since 1st February, 1936, the State enactments have been administered by the Maritime Services Board. The gross collections by the State authorities amounted to £8,753,007 in 1961-62. This figure includes the revenue for the ports of Sydney, Newcastle and Botany Bay (see table on p. 827) and State navigation service collections £1,980,517 (1961-62). Commonwealth Government revenue from light dues and navigation receipts, for the whole of Australia, amounted to £746,842 in 1961-62.

2. *Victoria.*—(i) *Melbourne Harbor Trust.* (a) *General.* Information regarding the origin and constitution of this Trust, which controls the Port of Melbourne, appears in Official Year Book No. 12, pages 970-2. The Port of Melbourne comes under the control of the Melbourne Harbor Trust Commissioners, an independent autonomous statutory organization, with a full-time Chairman and five part-time Commissioners with specialized knowledge of the requirements of exporters, primary producers, shipowners, importers and all aspects of port labour. The area of water and land under the control of the Trust is  $10\frac{1}{2}$  square miles, with sheds available for cargo in transit totalling 25,505 feet in length and covering an area of  $46\frac{1}{2}$  acres.

Two of the largest transit sheds on the Australian coast are now in operation at Appleton Dock. The sheds are 600 feet long by 150 feet wide, with a cargo stacking area of 81,000 square feet. The berths are used for the general cargo trade and have both rail and crane facilities, and modern amenities for port workers. The total length of wharves, piers and jetties in the port is 61,550 feet, covering an area of  $58\frac{1}{2}$  acres with 58,466 feet of effective berthing space.

During 1961, work was commenced at South Wharf to modify two berths as specialized cargo-handling berths for the growing container cargo trade. The second berth at the Tasmanian Ferry Terminal for the roll-on, roll-off cargo service between Melbourne and Tasmania was brought into operation in March, 1961.

The depth of water (low water ordinary spring tide) from the main channels to the principal wharves is 31 to 39 feet.

(b) *Finances.* The following table shows particulars of the financial operations of the Trust.

## MELBOURNE HARBOR TRUST: FINANCES

(£ )

Year	Gross loan indebtedness at 31st December	Revenue		Expenditure				Surplus (+) or deficit (-)
		Wharfage and tonnage rates	Total	Administration and maintenance	Interest, debt redemption, exchange, etc.	Depreciation, renewals and insurance account	Total (a)	
1957 ..	12,175,428	1,882,501	2,746,513	1,557,933	520,223	250,938	2,718,159	+ 28,354
1958 ..	12,907,279	2,043,848	3,020,913	1,310,119	603,899	631,988	2,958,686	+ 62,227
1959 ..	13,833,011	2,100,924	3,292,329	1,634,513	766,909	376,397	3,201,943	+ 90,386
1960 ..	14,199,060	2,492,139	3,948,187	1,962,110	766,532	641,175	3,872,264	+ 75,923
1961 ..	14,240,702	2,303,586	3,791,495	2,246,657	910,713	203,909	3,826,008	- 34,513

(a) Includes statutory payments to Consolidated Revenue and Geelong Harbour Trust:—1957, £389,065; 1958, £412,680; 1959, £424,124; 1960, £502,447; and 1961, £464,729. Excludes capital expenditure:—1957, £1,054,236; 1958, £1,658,589; 1959, £1,458,499; 1960, £1,280,529; and 1961, £1,348,846.

(ii) *Geelong Harbor Trust.* The Geelong Harbor Trust, constituted in 1905, is under the control of three Commissioners appointed from time to time by the Governor-in-Council. One of these, the chairman, is on a full time basis.

At the end of 1961, there were 19 effective berths in the port, plus two berths at the Commonwealth Explosives Pier, Pt. Wilson, owned and operated by the Commonwealth. Three major wharf projects are in course of planning, the first of which is expected to be under construction early in 1963. Four berths have a depth of 36 feet at low water, but a further two (at Bulk Wheat Pier) are expected to have 36 feet by March, 1963. All other berths, except Yarra Pier, 29 feet, and Commonwealth Explosives Pier, Pt. Wilson, 30 feet, have a depth of 32 feet at low water.

Revenue for the year 1961 was £1,214,782 and expenditure from revenue totalled £701,077. At 31st December, 1961, the value of the Trust's fixed assets was £8,362,888 and loans outstanding amounted to £2,797,401.

(iii) *Portland Harbor Trust.* Construction of an all weather deep-sea port of three berths with a low water depth of 36 feet was completed to operational standards in 1960. Currently work in progress on the construction of an oil tanker berth, which is scheduled for completion in February, 1963.

Operating revenue for the year ended 30th June, 1961, was £63,183 and revenue expenditure was £48,987. The value of the Trust's fixed assets, less depreciation, was £6,358,601 at 30th June, 1961, and loans and advances outstanding amounted to £6,482,122.

3. *Queensland.*—(i) *General.* The ports of Queensland, except Brisbane and certain minor ports, are administered by Harbour Boards with members representing the towns and districts served by the ports. Brisbane and the minor ports are controlled by the State Treasury through the Department of Harbours and Marine, which supervises the engineering activities of the other ports.



(ii) *Brisbane.* Brisbane accommodates comfortably, in its dredged and improved river, the largest vessels in the Australian trade. The main centres for shipping, although further downstream than formerly because of the increasing size of vessels, are still within easy access of the city. Adequate dry-docking facilities are available. The finances of Brisbane Harbour for the years 1956-57 to 1960-61 are shown below.

**BRISBANE HARBOUR: FINANCES**  
(£'000)

Year	Loan indebtedness at 30th June	Receipts		Payments	
		Harbour dues	Total	Working expenses(a)	Total
1956-57 .. ..	3,011	671	918	843	1,048
1957-58 .. ..	3,042	696	938	731	944
1958-59 .. ..	2,702	709	1,097	664	883
1959-60 .. ..	2,512	772	1,059	731	953
1960-61 .. ..	2,813	763	1,164	679	901

(a) Excludes interest and redemption included in total.

In addition to Brisbane Harbour, the Department of Harbours and Marine also controls the Brisbane Dry Dock, the Cairncross Dock, and nine smaller harbours not administered by harbour boards.

(iii) *Harbour Boards.* Harbour boards control the ports of Bowen, Bundaberg, Cairns, Gladstone, Mackay, Rockhampton and Townsville. Finances for each port for the year ended 30th June, 1961, are shown below, together with a summary for the years ended 30th June, 1957 to 1960.

**HARBOUR BOARDS, QUEENSLAND: FINANCES**  
(£)

Harbour board	Loan indebtedness at 30th June	Revenue		Expenditure (excluding loan)		Surplus(+) or deficit(-)
		Wharfage and harbour dues	Total	Working expenses	Total (including interest and redemption)(a)	
Bowen .. ..	273,982	7,750	37,430	13,477	18,315	+ 19,115
Bundaberg .. ..	2,487,273	112,420	243,931	10,557	224,574	+ 19,357
Cairns .. ..	242,546	186,136	275,164	205,583	251,696	+ 23,468
Gladstone .. ..	784,968	41,650	72,740	27,655	84,804	- 12,064
Mackay .. ..	1,331,243	167,707	374,694	73,844	409,318	- 34,624
Rockhampton .. ..	629,407	39,750	119,312	21,176	104,893	+ 14,419
Townsville .. ..	3,645,928	306,774	559,898	195,098	531,673	+ 28,225
Total, 1960-61 .. ..	9,395,347	862,187	1,683,169	547,390	1,625,273	+ 57,896
1959-60 .. ..	8,430,437	908,911	1,807,041	561,425	1,526,770	+ 280,271
1958-59 .. ..	7,099,197	898,822	1,602,409	602,391	1,696,390	- 93,981
1957-58 .. ..	5,435,172	775,436	1,226,581	603,081	1,190,356	+ 36,225
1956-57 .. ..	3,567,335	757,778	1,005,986	578,259	1,170,528	- 164,542

(a) Includes expenditure on capital works from accumulated revenue.

4. *South Australia.*—The South Australian Harbors Board. All South Australian harbours are controlled by the South Australian Harbors Board, which consists of three Commissioners appointed by the Governor for a period of five years and eligible for re-appointment. The Board is responsible to the Minister of Marine for the discharge of its duties and functions. The most important ports are the five deep sea ports of Port Adelaide,

Port Pirie, Wallaroo, Port Lincoln and Thevenard. At a few ports, the wharves or jetties are privately controlled, the principal of these being at Whyalla, Ardrossan and Rapid Bay, all of which are controlled by the Broken Hill Pty. Co. Ltd. Port Augusta is controlled by the Commonwealth Railways on behalf of the Commonwealth Government. Maximum depths of water (low water) at the wharves of the main ports range from 24 feet at Port Pirie to 35 feet at Port Adelaide (Outer Harbour). The following table shows the finances of the Board for 1957-58 to 1961-62.

### THE SOUTH AUSTRALIAN HARBORS BOARD: FINANCES

(£)

Year	Capital at 30th June (a)	Revenue	Expenditure from revenue			Surplus
			Working expenses	Interest	Total	
1957-58..	14,189,715	2,119,826	1,487,014	505,322	1,992,336	127,490
1958-59..	15,325,443	2,156,669	1,464,006	550,364	2,014,370	142,299
1959-60..	16,324,529	2,314,999	1,574,774	612,711	2,187,485	127,514
1960-61..	17,432,015	2,714,743	1,684,618	658,269	2,342,887	371,856
1961-62..	18,555,851	2,576,697	1,676,407	701,032	2,377,439	199,258

(a) State Treasurer's Funds and Reserve employed.

5. *Western Australia.*—(i) *Fremantle Harbour Trust.* The Port of Fremantle is operated and controlled by the Fremantle Harbour Trust, a body corporate administered by a Board of five Commissioners appointed triennially by the Governor. The port covers an extensive water area of some 180 square miles and comprises an inner and an outer harbour. The inner harbour includes 18 deep water land-backed berths, providing more than 690,000 sq. ft. of covered storage space and 11,148 feet of wharf berth accommodation. All inner harbour berths are dredged to a depth of 36 feet. The outer harbour includes three main anchorages, Gage Roads, Owen Anchorage and Cockburn Sound. Deep water jetties are available in the outer harbour including the oil refinery jetties in Cockburn Sound. Ocean going deep draft ships enter the Sound by means of channels dredged through Success and Parmelia Banks to a low water depth of 38 feet and a bottom width of 500 feet. In the outer harbour there are three tanker berths, each with a low water depth of 44 feet, at the Kwinana oil refinery, and one berth at the nearby steelworks jetty with a low water depth of 30 feet. There are also special berths for the off-loading of cattle and the handling of high explosives.

Gross earnings for the year 1961-62 amounted to £3,937,439, working expenses to £2,416,757, interest charges to £291,039, debt redemption to £78,807, and renewals fund to £2,000. Special loan redemptions were £291,640, and net capital totalled £8,023,190.

(ii) *Albany Harbour Board.* The Albany Harbour is controlled by a board of five members appointed by the Government. The depth of water in the entrance channel is 33 feet, at one arm of the jetty 31 feet and at the other arm 33 feet. In the approaches to wharf berths, the depth is 33 feet. Wharf accommodation consists of 1,115 feet, and in addition the Deepwater Jetty has 2,500 feet of accommodation. Gross earnings for the year 1961-62 amounted to £132,811, working expenses £63,392, interest and sinking fund charges, £94,553, and amounts debited to loan capital account, £1,898,474.

(iii) *Bunbury Harbour Board.* The Bunbury Harbour is controlled by a board of five members appointed by the Government. The depth of water in the harbour is 30 feet and berthing accommodation is 3,700 feet. Gross earnings for the year 1961-62 amounted to £164,790, working expenses £74,570, interest and sinking fund charges £94,877, and amounts debited to loan capital account, £2,298,785.

(iv) *Other Ports.* The following ports are controlled by the State Government Harbour and Lights Department:—Broome, Busselton, Carnarvon, Derby, Esperance, Geraldton, Onslow, Point Samson, Port Hedland, Wyndham and Yampi. The Port of Esperance was under the control of the Railways Commission until 22nd January, 1962.

6. *Tasmania*.—There are eight marine boards and two harbour trusts in Tasmania. The marine boards control the ports of Hobart, Launceston, Stanley (Circular Head), Burnie and Wynyard (Table Cape), Devonport, Strahan, Currie (King Island), and White-mark (Flinders Island), and the harbour trusts those of Smithton and Ulverstone. Aggregate receipts of revenue accounts of all these authorities during the year 1960–61 were £1,621,271, and expenditures £1,382,024, including loan charges £346,112. The total receipts of the Hobart Marine Board during 1960–61 were £598,545, loan charges amounted to £118,377 and total expenditure to £450,919. Launceston Marine Board receipts during 1960–61 amounted to £332,480, loan charges to £44,570 and total expenditure to £323,625. Loan indebtedness of all marine boards and trusts at 30th June, 1961, was £4,649,213, of which £1,267,201 was in respect of Hobart (including Port Huon Wharf) and £615,780 in respect of Launceston.

Hobart, Launceston, Burnie and Devonport are the principal ports of Tasmania. In addition to their interstate and intra-state traffic, there is also considerable overseas shipping. Depths of water at wharves vary, in general, between 16 and 34 feet (low water ordinary spring tide), but at Hobart there is a depth of water of from 30 to 52 feet.

## § 7. Fire Brigades

1. *New South Wales*.—A Board of Fire Commissioners, consisting of five members, one appointed by the State Government (President) and one each representing insurance companies, local government authorities, volunteer firemen, and permanent firemen, operates under the *Fire Brigades Act* 1909–1958, and 154 fire districts had been constituted at the end of 1961. The cost of maintenance of fire brigades is borne in proportions of local councils and the Government each one-eighth, and the insurance companies three-quarters. The Board's borrowing power is limited to £1,000,000.

At 31st December, 1961, the authorized strength of the Fire Brigade throughout the fire districts of New South Wales was 411 officers and 1,228 permanent and 2,564 volunteer firemen. Corresponding figures for the Sydney Fire District were 340, 1,110 and 317. The revenue for the year 1961 was £3,475,378, made up as follows:—from the Government, £434,398; municipal and shires, £434,398; fire insurance companies and firms, £2,576,805, and from other sources, £29,777. The disbursements for the year were £3,388,300. The Board of Fire Commissioners provides the fire protection services for Canberra, in the Australian Capital Territory, and the cost of these services is reimbursed by the Commonwealth Government.

Under the *Bush Fires Act* 1949–1958, a Bush Fire Fighting Fund exists from which finance is provided for the prevention and fighting of bush fires. Contributions to the Fund by the Government, councils and insurance companies are in the proportion of one quarter, one quarter and one-half, respectively. At 30th June, 1962, Volunteer Brigades equipped by means of this fund numbered 2,500 with an active membership in excess of 65,000 persons. Up to 30th June, 1962, expenditure from the Fund for equipment amounted to £1,707,268.

2. *Victoria*.—(i) *General*. In Victoria, fire brigades are controlled by the Metropolitan Fire Brigades Board consisting of ten members, including an employees' representative, and the Country Fire Authority also consisting of ten members.

(ii) *Metropolitan Fire Brigades Board*. The Metropolitan Fire Brigades Board receives contributions from the municipalities and the insurance companies in the proportion of one-third and two-thirds respectively. On 30th June, 1962, the Board had under its control 45 stations, 1,024 permanent staff, 232 special service and clerical, etc., staff, and 17 part-time firemen. The total receipts for 1961–62 were £2,162,234, comprising contributions, £1,851,410, receipts for services, £204,805 and interest and sundries, £106,019. The expenditure was £2,032,297.

(iii) *Country Fire Authority.* This authority is responsible for the prevention and suppression of fires in the "country area of Victoria", which embraces the whole of the State outside the metropolitan fire district, excluding State forests and certain crown lands. The country area has been divided into 24 fire control regions, three of which (Ballarat, Bendigo and Geelong) are wholly urban and the remainder mixed urban and rural. The Country Fire Authority receives contributions in the proportion of two-thirds from insurance companies and one-third from the Treasury. At 30th June, 1962, the *Country Fire Authority Act* applied to 206 insurance companies, 207 urban and 1,037 rural fire brigades. The effective registered strength of the brigades was 106,904 members.

Income for the year 1961-62 amounted to £690,444. Total expenditure other than loan amounted to £634,518.

3. *Queensland.*—(i) *General.* Fire Districts are constituted under the Acts of 1920-1956. For each district, there must be a Fire Brigades Board consisting of seven members, and the cost of maintenance of each brigade is proportioned as follows:—Treasury one-seventh, insurance companies five-sevenths, and local authorities one-seventh. The insurance companies' contribution is paid to the State Government and thence to Fire Brigades.

(ii) *Fire Brigade Boards.* At 30th June, 1961, there were 78 Fire Brigade Boards. The total number of stations was 143 and full-time staff numbered 853, including 23 administrative, 175 officers and 655 firemen. Volunteers numbered 98. Part-time staff numbered 1,086, including 77 administrative, 111 officers, and 898 firemen. The total revenue for the year 1960-61 was £1,351,203, received mainly from the following sources:—Government £184,179, local authorities £184,179, insurance companies £920,916. Loan receipts (Government and other) were £107,741. The total expenditure for the year was £1,314,805, the chief items being salaries and wages £959,906, and interest and redemption of loans £94,092.

4. *South Australia.*—The *Fire Brigades Act* 1936-1958 provides for a board of five members, and the expenses and maintenance of brigades are defrayed in the proportion of two-ninths by the Treasury, five-ninths by insurance companies, and two-ninths by the municipalities concerned. When the Treasury proportion exceeds £10,000, the excess is borne five-sevenths by insurance companies and two-sevenths by the municipalities. At 30th June, 1962, there were altogether 35 fire brigade stations, of which 12 were metropolitan and 23 country.

The strength of the permanent staff at 31st December, 1962, was 393, including 272 officers and men, 89 country auxiliary firemen and 32 other employees (including maintenance workers). The total revenue for the year 1961-62 was £512,960, including contributions of £430,094 made up as follows:—insurance companies £257,395, Treasury £68,201 and municipalities £104,498. The treasury contribution includes an additional grant of £55,603.

5. *Western Australia.*—By the provisions of the *Fire Brigades Act* 1942-1961 certain local government districts are constituted fire districts under the control of the Western Australian Fire Brigades Board. There were 44 fire districts at 30th September, 1962. The contribution to the Board is made in the proportion of two-ninths from the Government, two-ninths from local government authorities, and five-ninths from insurance companies. The number of local government authorities and insurance companies who contributed numbered 60 and 169 respectively. The brigades, throughout the State, controlled by the Western Australian Fire Brigades Board at 30th September, 1962, numbered 63, with a staff of 1,399, including 272 permanent officers and firemen and 1,127 volunteer brigade officers and firemen. The revenue for the year ended 30th September, 1962, was £609,642 and the expenditure £606,584.

Under the *Bush Fires Act*, a Bush Fires Board, consisting of ten members, five of whom are nominated by the Country Shire Councils Association, was set up to advise the Minister for Lands on bush fire control. The Act also provides for the registration of bush fire control officers, who numbered 1,741 at 30th June, 1962, and the establishment of bush fire brigades, 793 at 30th June, 1962. Many individual brigades are large organizations with numerous self-contained sections.

6. *Tasmania.*—The *Fire Brigades Act 1945* provided for the creation of the Fire Brigades Commission of Tasmania to co-ordinate the activities of existing fire brigade boards, while leaving the responsibility for individual control and management with the boards. The Commission consists of two persons nominated by the Minister, one person elected by the City or Municipal Councils representatives and three persons elected by the insurance representatives of the Fire Brigades Boards. Contributions towards the cost of operations are on the basis of one quarter each from the Treasury and the municipalities and one half from the insurance companies concerned. The cost for the year 1960–61 amounted to £175,000. There were, at 30th June, 1961, 23 brigades controlling 35 stations, and their aggregate staffs numbered 553, including 100 permanent officers, 371 part-time firemen, including officers, and 82 volunteers.

## CHAPTER XX

### PRIVATE FINANCE

NOTE.—Further information on the subjects dealt with in this chapter is contained in the annual bulletin *Finance, Part I.—Public and Private Finance* published by this Bureau. Current information is contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics* (monthly), and the monthly mimeographed statements *Australian Banking Statistics* (bulletin and preliminary statement), *Australian Savings Bank Statistics* (bulletin and preliminary statement) and *Australian Life Insurance Statistics* (bulletin). The annual mimeographed bulletin *Australian Fire, Marine and General Insurance Statistics* contains the most recent information available on this subject. Other relevant mimeographed statements are:—*Instalment Credit for Retail Sales*; *Unit Trusts, Land Trusts, and Mutual Funds*; and *New Capital Raisings by Companies in Australia* (quarterly); *Capital and Maintenance Expenditure by Private Business in Australia* (half-yearly); *Oversea Investment: Australia* (annual); *Survey of Private Pension and Retiring Allowance Schemes, 1960–61*; and *Survey of Selected Large Pension Funds, 1955–56 to 1961–62*. Preliminary monthly statements *Instalment Credit for Retail Sales* and preliminary estimates of *New Capital Raisings* and of *Oversea Investment* are issued also.

### CURRENCY

#### § 1. General

1. **Decimal Currency.**—The Decimal Currency Committee was appointed by the Commonwealth Government in February, 1959, to investigate the advantages and disadvantages of a decimal currency, and, if a decimal currency was favoured, the unit of account and denominations of subsidiary currency most appropriate for Australia, the method of introduction, and the cost involved. The Committee presented its report in August, 1960, and the Summary of Conclusions and Recommendations contained therein is as follows.

“1. After examining the advantages and disadvantages of a decimal currency, and the evidence pointing to significant savings which would result, the Decimal Currency Committee is convinced that its adoption in Australia is desirable.

2. It is impossible to assess in money terms the savings which would result, but the Committee has no doubt that the savings in time and effort would outweigh the cost and inconvenience of the change.

3. Because of the uncertainty engendered in commerce and industry by the Committee's appointment and inquiry, and its consequent effect on the sale of office and other machines which would be affected by decimalization, the Commonwealth Government is urged to announce its decision at the earliest practicable date.

4. After examining various decimal systems the Committee recommends the introduction of the 10s.-cent system as the most appropriate for Australia.

5. This system has many advantages over the only others considered practicable—the £-cent-fraction and 8s. 4d.-cent systems.

6. The evidence received on the unpopularity of the half-penny and the undesirability of fractional coins in a decimal system where these can be avoided, leads the Committee to recommend that no half-cent be provided; it is suggested that the half-penny should be utilized as a half-cent coin during the transition period, but that no further halfpence should be minted after the change-over date.

7. The Committee recommends the provision of the following subsidiary coins under a 10s.-cent decimal system:

Decimal coin	Present values
20 cents .. .. .	2s.
10 cents .. .. .	1s.
5 cents .. .. .	6d.
1 cent .. .. .	1.2d.

It is suggested that consideration be given to the minting of 50-cent (= 5s.) and 2-cent (= 2.4d.) coins, if and when a new range of decimal coins of smaller size than existing coins is minted.

8. An official conversion table should be included in the decimalization legislation and copies of it distributed for the information of the public, showing the values of £ s. d. amounts from one halfpenny to one shilling in the new currency, and of decimal amounts from one half-cent to 10 cents in the old currency.

9. A preparatory period of approximately two years is regarded as necessary for the further investigations of many aspects of decimalization which will be required, and to enable all sections of the community to make preparations for the change-over.

10. The recommended official date of introduction of the new system is the second Monday in February, 1963.

11. The existing currency should remain the only official system prior to the change-over date, but during the transition period which follows that date the concurrent use of both old and new currencies should be permitted.

12. The transition period referred to is necessary to enable the conversions of £ s. d. monetary machines, and will be of approximately two years duration.

13. Because of the nature and extent of banks' operations and their strategic role in reform of this nature it is proposed that banks should commence to operate in decimal currency as from the change-over date.

14. *For this purpose it is recommended that banks should be closed to the public on the Thursday, Friday and Saturday preceding the change-over date, so as to enable them to make the necessary internal adjustments, and have their machines converted.*

15. It is recommended that all undertakings which trade with the public should prominently display copies of the official conversion table.

16. The Committee considers that the machine conversion programme should be an officially sponsored and directed one, if extraordinary disruption and inconvenience to government and business is to be avoided and the transition period kept within acceptable limits.

17. An authority should be established by the Commonwealth Government to take charge of the machine conversion programme and co-ordinate this with the many official arrangements which will need to be made.

18. The Committee recommends that machine conversion should be carried out on the basis of definite age limits, to be determined by the supervisory body, beyond which machines will not be included in the official conversion programme. Owners of such "over-age" machines will be free to have their machines converted or replaced, at their own choice, but will have to make their own arrangements for conversions.

19. Full conversion should, where practicable, be applied to machines included in the official conversion programme.

20. It is considered that relief machines will be needed to be provided to machine users while their own £ s. d. machines are being converted, and it is suggested that this should be arranged by each of the machine companies concerned with the actual conversion work.

21. The Committee recommends that priority in machine conversions should be accorded to bank machines, but sees no need for any other priorities in this regard.

22. The Committee considers that special procedures should be adopted for the conversion of banks' machines, so as to enable them to make the change to decimal operation over a four-day period. It is thought that a plan based on measures proposed in South Africa would be practicable here also, although some minor modifications are suggested.

23. The major burden of work connected with decimalization will fall on the office machine and other companies which will have to carry out the conversion of machines. It is proposed that the supervisory body will work closely with these companies, settle the conversion charges made by them, as well as the age limits to be used in connexion with the official conversion programme, and supervise the operation generally.

24. The Committee recommends that restriction be placed upon the importation of £ s. d. machines, so as to avoid adding unnecessarily to the cost and time of the conversion programme, from the date of the announcement of intention to decimalize.

25. The Committee recommends that consideration be given by the Government to the placing of some limitations upon the importation of new decimal makes and models of machines so as to afford reasonable protection to companies carrying out conversion work.

26. The Committee provides estimates of the cost of the change-over insofar as monetary machines (excluding coin-operated machines) are concerned.

27. The estimates are given on the basis of assumptions and conditions (as set out in Chapter V. of the Report of Decimal Currency Committee), and upon two different hypotheses, the first being that all machines within the "economic lives" adopted would be converted, and the second that machines within the higher limits of the lives adopted would be replaced and the remainder converted.

28. The Committee also provides estimates of the additional cost involved in converting Banks' machines over the four-day bank closure period, under each of the hypothetical conversion conditions assumed.

29. The estimates for each of the hypotheses used, including the additional bank machine costs, are:—

					£
(a)	Conversion Cost	..	..	..	29,672,000
	Additional Bank Machine Cost	..	..	..	2,052,000
	Total Cost	..	..	..	31,724,000
(b)	Conversion Cost	..	..	..	26,755,000
	Replacement Cost	..	..	..	2,147,000
	Additional Bank Machine Cost	..	..	..	1,804,000
	Total Cost	..	..	..	30,706,000

30. The Committee points out that the age limits adopted were not referred to all parties concerned and suggests some instances where revision may be required.

31. The Committee also draws the government's attention to the increased conversion costs which would result from postponement of the decision to decimalize, and provides estimates of the increased conversion costs which might be incurred for selected types of machines if the change-over took place in 1970.

32. The Committee points out that it has made no recommendation for reimbursement for costs incurred in the change-over, for the reason that the subject was not included in its terms of reference. Many organizations were, however, obviously disturbed over this aspect of decimalization. The Committee thinks that the Government should be informed of this, and of the facts that costs will fall heavily and inequitably upon highly mechanized concerns, many of which would be hard pressed to meet the necessary expenditure.

33. It is suggested that, because South African conversion will precede adoption of the decimal currency in Australia the Commonwealth Government should, if it decides to make the change-over here, make every effort to benefit from the South African experience".

In July, 1961, the Commonwealth Government confirmed its support of decimal currency system, but considered it undesirable to make final decisions on the detailed arrangement which would be necessary to effect the change.

On 7th April, 1963, the Commonwealth Government announced that a system of decimal currency was to be introduced into Australia at the earliest practicable date, and gave February, 1966, as the tentative change-over date, subject to confirmation that all the necessary arrangements could be completed by that date so that the currency reform could be introduced with the minimum amount of inconvenience.

The new system would be based on a major unit equal to the present ten shillings. The minor unit of the new system would be one hundredth part of the major unit, and would thus be equal in value to 1.2d. in the existing coinage system. No fractions of the minor unit would be introduced.

The Government also announced that it would pay reasonable compensation to owners of a large proportion of monetary machines which would require conversion in order to be used under the new decimal system. While the general principles on which the compensation would be paid had already been determined, a vast number of points of detail would have to be negotiated with the machine companies concerned, and this would be one of the principal



duties of a statutory authority which would shortly be established to plan and administer preparations for the change-over. Legislation to set up this authority, and to provide for the new denomination of currency and other associated matters would be introduced in Parliament this year.

A Committee of Cabinet which had been appointed to consider all aspects of the decimal currency question would give its early attention to such questions as the establishment of the new statutory body and the determination of its functions and responsibilities, the name of the new major currency unit, the denominations of new banknotes and coins to be issued, and the precise design, size and metallic content of the new coins (*see below*).

The Government emphasized that the tentative target of February, 1966, would depend to a large extent upon the completion on schedule of the new National Mint in Canberra, since it would be essential to have an adequate supply of the new decimal coins available for distribution to the public at the change-over date. The new mint was expected to be completed late in 1964, and this would allow full production of new coins for at least one year before February, 1966, supplemented if possible by assistance from the existing Melbourne and Perth Mints. The Melbourne and Perth Mints would, however, be primarily concerned with the production of the present coins, which would probably remain in circulation until late in 1967.

On 5th June, 1963, the Government announced that the major unit in the new Australian decimal currency system was to be called the "Royal". The Royal, which would be a banknote, would consist of 100 "units", each equivalent in value to 1.2d. under the present £ s. d. system. Denominations up to the Royal were to be coins (the present values shown in parenthesis) of 50 cents (5s.), 20 cents (2s.), 10 cents (1s.), 5 cents (6d.), 2 cents (2.4d.), and 1 cent (1.2d.). The 50-cent coin would be known as the "Crown". It would be of silver and would be slightly larger in diameter than the present penny. The 20-cent and 10-cent coins (to be known as "florins" and "shillings") together with the 5-cent coin would be of cupro-nickel and would be indistinguishable in size and weight from the present florin, shilling and sixpence respectively. The two-cent and one-cent coins would be of bronze, the two-cent coin having a diameter between those of the sixpence and shilling, and the one-cent coin a diameter smaller than the present sixpence.\*

**2. The Present Australian Monetary System.**—The Australian monetary system is based on the British system, of which the unit is the pound (£) divided into 20 shillings (s.) each of 12 pence (d.). When the Australian currency was introduced in 1909, the Australian pound was specified as equivalent to 123.27447 grains of gold  $\frac{11}{16}$ ths fine or 113.002 grains of fine gold and, until the depression in 1930, was identical with the pound sterling. There was a gradual depreciation of the Australian pound in terms of sterling from the beginning of 1930 until 3rd December, 1931, when it was stabilized at the rate of £125 Australian = £100 sterling. This relationship has been maintained until the present time. Following the depreciation, no action was taken to define the value of the Australian pound in terms of gold until 5th August, 1947, when the Australian Government advised the International Monetary Fund, in terms of the membership agreement, that the par value of the Australian pound was 2.86507 grammes (44.2148 grains) of fine gold. From 18th September, 1949, this was reduced to 1.99062 grammes (30.720 grains) of fine gold.

When the Commonwealth was established in 1901, the currency in Australia consisted of United Kingdom gold, silver and bronze coins, notes issued by the banks, and Queensland Treasury notes. Queensland Treasury notes were in circulation in Queensland only, having superseded bank notes in that State after the 1893 crisis. Under the Commonwealth Constitution, the control of currency, coinage and legal tender and the issue of paper money was vested in the Commonwealth. The Commonwealth assumed these powers by enacting the *Coinage Act* 1909 and the *Australian Notes Act* 1910.

Australian notes are legal tender in Australia for any amount. Australian silver coins are legal tender for any amount not exceeding forty shillings and Australian bronze coins are legal tender for any amount not exceeding one shilling.

## § 2. Coinage

**1. Coins in Circulation.**—Brief historical notes relating to the Australian coinage are given in Official Year Book No. 37, pages 557 and 558. For weight, metal, composition, etc., of Australian coins in circulation *see* Official Year Book No. 39, page 697.

The silver coins issued prior to July, 1947, have a millesimal fineness of 925 (thirty-seven fortieths silver and three fortieths copper) and those issued since 1st July, 1947 (dated 1946 and later), have a millesimal fineness of 500 (one-half silver and one-half other metals).

\* On 18th September, 1963, it was announced that the new major unit would be called the "Dollar" and not the "Royal", and that the dollar and the cent would be the only units with specified names.

From 1910 to 1916, Australian coins were minted in England by the Royal Mint, London, and the Mint, Birmingham Ltd., and in 1916 and 1917 by the Indian Mints. The minting of Australian coins was undertaken by the Australian Mints in 1916, and coins have been minted at the Melbourne branch of the Royal Mint from 1916 to the present time, at the Sydney branch from 1919 until that Mint closed in 1926, and at the Perth branch in 1922 and from 1940 to the present time.

During the 1939-45 War, the two Australian mints were unable to meet the demand for Australian coins, and some coins were minted in the United States of America and India. In 1951-52 and 1952-53, some coins were minted at the Royal Mint, London, to meet the heavy demand for coins. Details of Australian coins obtained from each mint to 30th June, 1962, are as follows:—Melbourne, £53,495,000; Perth, £1,855,000; Sydney, £488,000; United Kingdom Mints, £3,016,000; United States Mints, £6,000,000; Indian Mints, £169,000; total, £65,023,000.

2. **Issues of Australian Coins.**—The net issues of Australian silver and bronze coin from 1910 to 30th June, 1962, were:—Crown (5s.), £276,000; Florin (2s.), £21,621,000; Shilling (1s.), £10,041,000; Sixpence (6d.), £6,254,000; Threepence (3d.), £6,568,000; total silver coin, £44,702,000; Penny (1d.), £2,692,000; Half-penny (½d.), £796,000; total bronze coin, £3,488,000. Except in the total, no allowance has been made for £58,000 worth of damaged silver coin, for which denominations are not available, withdrawn since 1910.

3. **Profits on Coinage of Silver and Bronze.**—Australian silver and bronze coins are token coins and, as the face value of the coins is greater than the value of the bullion they contain, a profit is made from their issue. This profit forms part of the Commonwealth Consolidated Revenue. In the following table, details are given of the value of coins issued, the cost of bullion, the cost of minting and sundry expenses connected with the issue, and the profits made on the issue of coins during the years 1957-58 to 1961-62.

**AUSTRALIAN SILVER AND BRONZE COINS: PROFITS FROM ISSUE**  
(£)

Year	Face value of coin issued (a)	Cost of bullion	Gross profit	Cost of minting and sundry charges	Net profit
<b>SILVER COIN</b>					
1957-58 .. ..	1,509,885	1,032,098	477,787	205,916	271,871
1958-59 .. ..	1,304,682	933,065	371,617	139,948	231,669
1959-60 .. ..	2,157,682	1,505,128	652,554	182,558	469,996
1960-61 .. ..	2,262,622	1,591,878	670,744	258,002	412,742
1961-62 .. ..	3,672,543	2,658,758	1,013,785	267,921	745,864
<b>BRONZE COIN</b>					
1957-58 .. ..	67,785	59,987	7,798	56,985	— 49,187
1958-59 .. ..	78,906	61,786	17,120	100,252	— 83,132
1959-60 .. ..	121,354	87,422	33,932	88,988	— 55,056
1960-61 .. ..	145,125	110,101	35,024	126,598	— 91,574
1961-62 .. ..	143,289	101,810	41,479	197,939	— 156,460
<b>TOTAL</b>					
1957-58 .. ..	1,577,670	1,092,085	485,585	262,901	222,684
1958-59 .. ..	1,383,588	994,851	388,737	240,200	148,537
1959-60 .. ..	2,279,036	1,592,550	686,486	271,546	414,940
1960-61 .. ..	2,407,747	1,701,979	705,768	384,600	321,168
1961-62 .. ..	3,815,832	2,760,568	1,055,264	465,860	589,404

(a) Includes selected and proof pieces.

NOTE.—Minus sign (—) denotes a loss.

4. **Australian Mints.**—(i) *General.* Soon after the discovery of gold in Australia a branch of the Royal Mint was established in Sydney. The formal opening took place on 14th May, 1855. The Melbourne branch was opened on 12th June, 1872, and the Perth

Branch on 20th June, 1899. The States of New South Wales, Victoria and Western Australia provided an annual endowment in return for which the mint receipts were paid to the respective State Treasuries. Owing to losses incurred in its operations, the Sydney branch was closed at the end of 1926.

Since their establishment, the Australian branches of the Royal Mint have been primarily concerned with the refining of gold, minting of Imperial gold coins and the production of bars and ingots of gold bullion for export. The minting of Imperial gold coins was discontinued in September, 1931. In 1916, the Melbourne branch took over the minting of Australian silver and bronze coins from the Royal Mint, London. Australian coins were also minted at the Sydney Mint from 1919 to 1926 and at the Perth Mint in 1922 and from 1940 to the present time. The Melbourne branch has also minted token coins for the Territory of New Guinea and for New Zealand.

(ii) *Gold Receipts and Issues.* (a) *Receipts.* The receipts of gold at Australian mints during 1961 and 1962 amounted to 984,517 and 981,592 fine ounces respectively (Melbourne, 118,318 and 114,838 fine ounces respectively, Perth, 866,199 and 866,754 fine ounces respectively).

(b) *Issues.* The Australian mints issue gold bullion for the use of local manufacturers (jewellers, dentists, etc.) and for export. Since September, 1931, when the United Kingdom departed from the gold standard, the minting and issue of gold coins by Australian mints has ceased. Australian exports of gold are mainly in the form of 400-oz. ingots, but in earlier years a considerable amount of gold was shipped to India in 10-oz. bars. Since early in the 1939-45 War, all gold has been acquired by the Reserve Bank, and the export and use of gold have been subject to regulation by the Commonwealth Government. From December, 1951, export of a proportion of newly-mined gold for sale on premium markets overseas was permitted. The issues from Australian mints during 1961 and 1962 amounted to 983,500 and 982,143 fine ounces respectively (Melbourne, 117,097 and 115,045 fine ounces respectively, Perth, 866,403 and 867,098 fine ounces respectively).

5. *Price of Gold.*—The following table shows the average prices of gold, the average values of the sovereign's gold content in London, and the sovereign's Reserve Bank buying price in Australia for the years 1957-58 to 1961-62. The average price of gold in Australia is based on the Reserve Bank's buying price for gold lodged with the mints.

PRICE OF GOLD: LONDON AND AUSTRALIA

Period	London		Australia		
	Average price per fine oz.	Average value of sovereign's gold content	Average price per fine oz.	Sovereign	
				Reserve Bank buying price	Equivalent to a premium on mint par value of—
	£Stg. s. d.	£Stg. s. d.	£A. s. d.	£A. s. d.	%
1957-58..	12 9 10	2 18 10	15 12 6	3 12 6	267.8
1958-59..	12 9 11	2 18 10	15 12 6	3 12 6	267.8
1959-60..	12 10 3	2 18 11	15 12 6	3 12 6	267.8
1960-61..	12 11 9	2 19 3	15 12 6	3 12 6	267.8
1961-62..	12 10 1	2 18 10	15 12 6	3 12 6	267.8

In December, 1951, arrangements were made whereby producers could sell a proportion of newly-mined gold for industrial purposes on overseas premium markets. Under these arrangements, gold is acquired by the Reserve Bank in the usual manner and sold, at the Bank's buying price, to an association representing gold producers participating in the scheme. The association pays the Bank's handling charges and the costs of preparation of the gold and makes arrangements for export and sale. The gold can be sold only against payment in United States dollars. Profits earned by the association after meeting administrative expenses are distributed to members in proportion to the quantity of gold delivered to the Reserve Bank. Until August, 1952, when permission was given for the export of fine gold, gold exported under this arrangement was not to exceed a fineness of 22 carats ( $\frac{11}{12}$ ths).

The average prices per fine ounce in Australian currency (f.o.b.) obtained for gold exported under this scheme for each month during 1961-62 for which there were sales were:—July, £15 14s. 3d.; August, £15 13s. 6d.; November, £15 12s. 6d.; December, January and February, £15 13s. 4d.

### § 3. Notes

1. **General.**—Brief historical notes relating to the circulation and issue of notes in Australia are given in Official Year Book No. 37, pages 561 and 562. The issue of notes intended for circulation as money other than by the Reserve Bank is prohibited.

2. **The Australian Note Issue.**—(i) *General.* Notes in circulation in Australia are issued by the Reserve Bank through the Note Issue Department. The Bank is authorized to issue Australian notes in denominations of 5s., 10s., £1, £5, £10 and any multiple of £10. The Reserve Bank is not required to hold a specific reserve in gold against the note issue, but the assets of the Note Issue Department must be held or invested in gold, on deposit with any bank, or in securities of the Government of the United Kingdom, the Commonwealth, or a State. Under the *Reserve Bank Act 1959*, the profits of the Note Issue Department are paid to the Commonwealth.

Australian notes are legal tender to any amount within Australia and have been issued in denominations of 10s., £1, £5, £10, £20, £50, £100 and £1,000. Notes of denominations higher than £10, however, have not been issued to the public since 1945.

(ii) *Australian Notes in Circulation.* Particulars of the average values of notes in circulation for the years 1957–58 to 1961–62 are given in the following table.

**AUSTRALIAN NOTE ISSUE**  
(£'000)

Denomination	Average of monthly statements(a) for year—				
	1957–58	1958–59	1959–60	1960–61	1961–62
10s. .. .. .	11,170	11,507	11,919	12,236	12,526
£1 .. .. .	69,704	68,919	69,638	69,983	69,298
£5 .. .. .	174,430	177,931	186,144	192,789	192,392
£10 .. .. .	135,967	139,205	146,393	152,302	153,613
£20 .. .. .	4	3	3	2	2
£50 .. .. .	42	37	34	32	30
£100 .. .. .	47	42	38	37	36
£1,000 .. .. .	601	634	2,330	2,856	3,511
<i>Held by Banks</i> .. .. .	45,490	46,777	53,084	57,111	59,695
<i>Held by Public</i> .. .. .	346,475	351,501	363,415	373,126	371,713
<b>Total</b> .. .. .	<b>391,965</b>	<b>398,278</b>	<b>416,499</b>	<b>430,237</b>	<b>431,408</b>

(a) Last Wednesday in month.

(iii) *Reserve Bank—Note Issue Department.* The following statement shows particulars of liabilities and assets of the Note Issue Department of the Reserve Bank as at 30th June, 1961 and 1962.

**RESERVE BANK OF AUSTRALIA: NOTE ISSUE DEPARTMENT—**  
**LIABILITIES AND ASSETS, 30th JUNE**  
(£'000)

Liabilities	1961	1962	Assets	1961	1962
Notes on issue(a) ..	415,783	424,222	Gold and balances held abroad (including money at short call)	175,379	221,360
Special reserve—			Other overseas securities .. .. .	15,997	14,995
Premium on gold sold .. .. .	4,755	4,755	Government securities (including Commonwealth treasury bills)	239,431	202,963
Other liabilities(a) ..	10,328	10,389	Other assets .. .. .	59	48
<b>Total</b> .. .. .	<b>430,866</b>	<b>439,366</b>	<b>Total</b> .. .. .	<b>430,866</b>	<b>439,366</b>

(a) Notes of a denomination not exceeding one pound which have been on issue for more than 20 years, and notes of a denomination exceeding one pound which have been on issue for more than 40 years are not included in the item Notes on issue but are included in the item Other liabilities.

In 1961–62, the net profits of the Note Issue Department amounted to £15,751,000 and were paid to the Commonwealth of Australia.

## BANKING

## § 1. Cheque-Paying Banks

1. **Royal Commission on Monetary and Banking Systems.**—A Royal Commission was appointed by the Commonwealth Government in November, 1935, to inquire into the monetary and banking systems in operation in Australia and to report whether any, and if so what, alterations were desirable in the interests of the people of Australia as a whole, and the manner in which any such alterations should be effected. The Commission presented its report on 15th July, 1937, and a summary of the recommendations appears in Official Year Book No. 31, page 1010.

2. **Banking Legislation.**—(i) *Commonwealth Legislation.* Under Section 51 of the Commonwealth Constitution, the Commonwealth Parliament has power to legislate with respect to "Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money." The principal Commonwealth Acts at present in force relating to banking are—

- (a) The *Reserve Bank Act* 1959, which provides for the constitution and management of the Reserve Bank of Australia and the management of the Australian note issue;
- (b) The *Commonwealth Banks Act* 1959–1961, which provides for the constitution and management of the Commonwealth Banking Corporation, Commonwealth Trading Bank of Australia, Commonwealth Savings Bank of Australia and Commonwealth Development Bank of Australia; and
- (c) The *Banking Act* 1959, which provides for the regulation of banking and for the protection of the currency and the public credit of the Commonwealth.

The *Banking Act* 1959, which replaced the *Banking Act* 1945–1953, was assented to on 23rd April, 1959, and came into operation on 14th January, 1960. It applies to all banks, except State banks trading in their own State, operating in Australia or the Territories of the Commonwealth. The objects of the Act are:—(a) to provide a legal framework uniform throughout Australia for regulating the banking system; (b) to safeguard depositors of the banks from loss; (c) to provide for the co-ordination of banking policy under the direction of the Reserve Bank; (d) to control the volume of credit in circulation and bank interest rates; (e) to mobilize and to provide machinery for the control of the foreign exchange and gold resources of the Australian economy. A summary of the main provisions of the Act is given in Official Year Book No. 46, pages 759 and 760.

(ii) *State Legislation.* State banking legislation relates to the incorporation of banks and the constitution and management of State banks. The Acts under which the various banks are incorporated differ. While some of the older banks were incorporated by special Act or Charter, e.g. the Bank of New South Wales by Act of Council 1817, the Bank of Adelaide by Act of the South Australian Parliament, and the Bank of New Zealand by Act of the General Assembly of New Zealand, most of the banks are incorporated under a Companies Act of the States or the United Kingdom. This is also the case with those banks which were reconstructed after the crisis of 1893. State banks, constituted under State Acts, transacting general banking business, are The Rural Bank of New South Wales, the State Bank of South Australia and The Rural and Industries Bank of Western Australia.

3. **Presentation of Banking Statistics.**—Because of the different purposes they serve in the Australian financial system, Australian banks have been divided for statistical purposes into the following five groups and a separate series is presented for each.

- (a) *The Reserve Bank of Australia.* Formerly the Commonwealth Bank, this bank is the Central Bank. It also provides special banking facilities through the Rural Credits Department. Statistics of the Central Banking Business (including the Note Issue Department) and of the Rural Credits Department are presented in separate series.
- (b) *The Commonwealth Development Bank of Australia.* This bank, which commenced operations on 14th January, 1960, under the control of the Commonwealth Banking Corporation, was formed basically from an amalgamation of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank. Its prime purpose is to assist in the development of worth-while enterprises in the field of both primary and secondary industries which would otherwise be unable to obtain the necessary finance on reasonable and suitable terms and conditions.

- (c) *The Commonwealth Trading Bank of Australia.* This bank commenced operations on 3rd December, 1953. On that date, under the provisions of the *Commonwealth Bank Act 1953*, it took over the business of the General Banking Division of the Commonwealth Bank. On 14th January, 1960, under the provisions of the *Commonwealth Banks Act 1959*, it came under the control of the Commonwealth Banking Corporation.
- (d) *Private Trading Banks.* This group was formerly known as the Nine Trading Banks, but the number of banks included has been reduced to seven by amalgamations. With the Commonwealth Trading Bank, these banks provide the major part of the general banking facilities in Australia. The banks included in this group are—the Australia and New Zealand Bank Ltd. (an amalgamation of the Bank of Australasia Ltd. and the Union Bank of Australia Ltd.), The Bank of Adelaide, the Bank of New South Wales, The Commercial Bank of Australia Ltd., The Commercial Banking Company of Sydney Ltd., The English, Scottish and Australian Bank Ltd. and The National Bank of Australasia Ltd. (which has absorbed The Queensland National Bank Ltd. and The Ballarat Banking Co. Ltd.).
- (e) *Other Banks.* This group consists of (i) three State Government Banks—The Rural Bank of New South Wales, the State Bank of South Australia and The Rural and Industries Bank of Western Australia, (ii) one joint stock bank—The Brisbane Permanent Building and Banking Co. Ltd., which has specialized business in one district only, and (iii) branches of three overseas banks—the Bank of New Zealand, Comptoir National d'Escompte de Paris and the Bank of China, which transact limited business in Australia and are mainly concerned with financing trade, etc., between Australia and overseas countries.

In addition to the series mentioned above, a series for all cheque-paying banks is presented. This series covers the Commonwealth Trading Bank, the Private Trading Banks, and the other cheque-paying banks included in the fifth group.

Unless otherwise stated, the statistics presented are averages of weekly returns. Averages of liabilities and assets are the averages of the liabilities and assets of the banks on the weekly balance days during the period concerned. Averages of bank clearings and debits to customers' accounts are the averages of transactions for weeks ended on the balance days during the period.

4. *Banks Transacting Business in Australia.*—(i) *Number of Branches.* At 30th June, 1962, the 15 banks operating in Australia transacted all classes of banking business at 3,972 branches and 1,619 agencies. The Commonwealth Trading Bank and the Private Trading Banks have branches throughout Australia. The Rural Bank of New South Wales, the State Bank of South Australia and The Rural and Industries Bank of Western Australia, being State Government banks, have branches only in their respective States. The Brisbane Permanent Building and Banking Co. Ltd. transacts business only in Brisbane. The remaining three banks are branches of overseas banks.

**CHEQUE-PAYING BANKS: NUMBER OF BRANCHES(a) AT 30th JUNE, 1962**

Banks	New South Wales	Victoria	Q'land	South Aust.	West. Aust.	Tasmania	Nor. Terr.	Aust. Cap. Terr.	Australia
Commonwealth Trading Bank of Australia ..	309	90	88	27	53	15	2	3	587
Private Trading Banks ..	1,052	946	513	309	246	79	9	13	3,167
Other cheque-paying banks	141	2	1	34	40	..	..	..	218
All cheque-paying banks—									
Metropolitan areas ..	640	542	158	147	143	24	..	..	1,654
Elsewhere ..	862	496	444	223	196	70	11	16	2,318
Total ..	1,502	1,038	602	370	339	94	11	16	3,972

(a) Includes head offices. Excludes 1,619 agencies.

(ii) *Capital Resources, Profits and Dividends.* The paid-up capital of cheque-paying banks (excluding the three overseas banks, the Bank of New Zealand, the Bank of China and the Comptoir National d'Escompte de Paris), together with their reserve funds, their profits and the amount of their last dividends, are shown in the following table. The information relates to the balance-sheet last preceding 31st October, 1962. All amounts are expressed in Australian currency.

**CHEQUE-PAYING BANKS(a): CAPITAL RESOURCES, PROFITS AND DIVIDENDS, 1962**

(£'000)

Bank	Paid-up capital (b)	Reserve funds	Balance of profit and loss account (c)	Total share-holders' funds (d)	Reserve liability of share-holders (e)	Net profit for year (f)	Net dividends (g)
Commonwealth Trading Bank of Australia .. .. .	7,429	4,238	..	11,667	..	858	..
Private Trading Banks—							
Australia and New Zealand Bank Ltd. .. .. .	13,805	9,413	1,953	25,171	..	1,182	1,015
The Bank of Adelaide .. .. .	1,750	2,000	199	3,949	1,750	230	175
Bank of New South Wales .. .. .	21,950	15,250	2,351	39,551	21,950	2,771	2,524
The Commercial Bank of Australia Ltd. .. .. .	6,223	3,610	656	10,489	..	619	495
The Commercial Banking Co. of Sydney Ltd. .. .. .	7,488	7,499	691	15,678	..	865	661
The English, Scottish and Australian Bank Ltd. .. .. .	6,275	3,765	867	10,907	..	435	346
The National Bank of Australasia Ltd. .. .. .	10,089	7,500	1,388	18,977	2,700	1,053	908
The Queensland National Bank Ltd. (in vol. liq.) (h) .. .. .	..	1	30	31	..	..	..
<i>Total, Private Trading Banks</i> .. .. .	75,009	53,276	8,135	136,420	26,400	8,013	6,124
Other Cheque-paying Banks—							
The Brisbane Permanent Building and Banking Co. Ltd. .. .. .	1,000	350	85	1,435	..	107	80
The Rural Bank of New South Wales .. .. .	13,028	12,571	..	25,599	..	165	..
State Bank of South Australia .. .. .	13,508	1,909	..	15,417	..	167	..
The Rural and Industries Bank of Western Australia .. .. .	9,075	525	..	9,600	..	84	..
<i>Total, Other Cheque-paying Banks</i> .. .. .	36,611	15,355	85	52,051	..	523	80
<b>Grand Total</b> .. .. .	111,620	68,631	8,220	188,471	26,400	8,536	6,204

(a) At various balance sheet dates during 1962. (b) For the Commonwealth Trading Bank, the amount shown in this column is the amount specified as capital in the *Commonwealth Banks Act 1959*. For the State Bank of South Australia and The Rural and Industries Bank of Western Australia, the amounts shown in this column are capital funds provided by the respective State Governments. Capital of The Rural Bank of New South Wales consists of Inscribed Stock and Debentures issued by the bank for capital purposes. (c) Includes dividends declared but not paid at date of balance-sheet. (d) For the Commonwealth Trading Bank and the State banks, the amount shown in this column is total capital and reserves. (See footnote (b).) (e) Includes uncalled capital. (f) For the State Government banks, the net profit is the profit after writing off bank premises and payment of interest on capital. For the other banks, the net profit is the profit before writing off bank premises. (g) Dividends paid and payable out of profits earned during 1961-62. (h) This bank was in process of liquidation consequent upon the amalgamation of its business with the National Bank of Australasia Ltd.

5. The Reserve Bank of Australia.—(i) *General.* The Reserve Bank of Australia, established under the *Reserve Bank Act 1959*, which came into operation on 14th January, 1960, continued in existence the body corporate known as the Commonwealth Bank of Australia. An account of the progress and development of that bank is given in earlier issues of the Official Year Book (see No. 37, pp. 570 to 573, and No. 45, pp. 735 to 737).

The general functions of the Reserve Bank are set out in Section 10 of the *Reserve Bank Act 1959*, which states:—

“ It is the duty of the Board, within the limits of its powers, to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia and that the powers of the Bank under this Act, the *Banking Act 1959*, and regulations under that Act are exercised in such a manner as, in the opinion of the Board, will best contribute to,

- (a) the stability of the currency of Australia;
- (b) the maintenance of full employment in Australia; and
- (c) the economic prosperity and welfare of the people of Australia.”

In addition to its functions as a Central Bank, the bank controls the Australian note issue through a Note Issue Department, provides special banking facilities through the Rural Credits Department, and acts as banker to the Commonwealth and some of the States.

Prior to its reconstitution as the Reserve Bank, the Commonwealth Bank also provided general banking facilities through a General Banking Division up to 3rd December, 1953, when that business was taken over by the Commonwealth Trading Bank, and special banking facilities through the Mortgage Bank and Industrial Finance Departments. In addition, the Board of the Commonwealth Bank was responsible for the policy and administration of the Commonwealth Trading Bank and Commonwealth Savings Bank. On 14th January, 1960, on its reconstitution as the Reserve Bank, the Mortgage Bank and Industrial Finance Departments were amalgamated to form the Commonwealth Development Bank, and that institution, together with the Commonwealth Trading Bank and the Commonwealth Savings Bank, was placed under the control of the Commonwealth Banking Corporation, an organization established under the *Commonwealth Banks Act 1959* and entirely separate from the Reserve Bank.

(ii) *Management.* The Commonwealth Bank was managed between 1911 and 1924 by a Governor, from 1924 to August, 1945, by a Board of Directors, from August, 1945, to August, 1951, by a Governor, assisted by an Advisory Council, and since August, 1951, by a Board of Directors.

Under the provisions of the *Reserve Bank Act 1959*, the policy of the Reserve Bank is determined by a Board consisting of the Governor (Chairman), the Deputy Governor, the Secretary to the Treasury, and seven other members appointed by the Governor-General. The Bank is managed by the Governor, who acts in accordance with the policy of the Board and with any directions of the Board. The Bank is required to inform the Government of the monetary and banking policy of the Board. In the event of a disagreement between the Government and the Board as to whether the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia, the Governor-General, acting with the advice of the Executive Council, may determine the policy to be adopted by the Bank.

(iii) *Central Banking Business.* Under the powers it possessed under the *Commonwealth Bank Act 1911–1943* and under its war-time powers under the National Security Regulations, the Commonwealth Bank gradually assumed the functions of a Central Bank. Part III. of the *Commonwealth Bank Act 1945* formally constituted the Bank as a Central Bank and granted the necessary powers to carry on the business of a Central Bank, and these powers were carried through into the present Act constituting the Reserve Bank. Under the provisions of the *Reserve Bank Act 1959*, the capital for the Central Banking Business is the capital of the Commonwealth Bank for Central Banking purposes immediately prior to 14th January, 1960, and such other sums as are transferred from the Reserve Bank Reserve Fund. The profits of the Bank are distributed as follows: (a) such sums as the Treasurer, after consultation with the Bank, determines shall be placed to the credit of the Reserve Bank Reserve Fund and (b) the remainder shall be paid to the Commonwealth.

(iv) *Note Issue Department.* The Note Issue Department, established in 1920 when the control of the Australian note issue was transferred from the Commonwealth Treasury to the Commonwealth Bank, was maintained in the same form under the *Reserve Bank Act 1959*. The Reserve Bank may, through this Department, issue, re-issue and cancel Australian notes. Under the *Reserve Bank Act 1959*, the profits of the Note Issue Department are paid to the Commonwealth.



(v) *Rural Credits Department.* The Rural Credits Department, established in 1925 for the purpose of making short-term credit available for the orderly marketing of primary produce, was continued in the same form under the *Reserve Bank Act 1959*. The Reserve Bank may, through this Department, make advances upon the security of primary produce placed under the legal control of the bank, or other security associated with the production or marketing of primary produce, to co-operative associations or marketing boards formed under the laws of the Commonwealth or a State or Territory of the Commonwealth or other bodies specified by proclamation. The period of the advance shall not exceed one year. Under the provisions of the *Reserve Bank Act 1959*, the capital of the Rural Credits Department is the capital of the Rural Credits Department of the Commonwealth Bank immediately prior to 14th January, 1960, and £2,000,000 provided by the Reserve Bank. The profits of the Rural Credits Department are dealt with as follows: (a) one half shall be placed to the credit of the Rural Credits Department Reserve Fund and (b) one half shall be placed to the credit of the Rural Credits Development Fund.

(vi) *Liabilities and Assets—All Departments.* Liabilities and assets of each Department of the Reserve Bank at 30th June, 1962, are shown in the following table.

**RESERVE BANK OF AUSTRALIA: LIABILITIES AND ASSETS, 30th JUNE, 1962**  
(£'000)

Particulars	Central Banking Business	Note Issue Depart- ment	Rural Credits Depart- ment	Total(a)
<b>LIABILITIES</b>				
Capital .. .. .	4,000	..	4,714	8,714
Reserve funds .. .. .	20,101	..	1,943	22,044
Special reserve—premium on gold sold .. .. .	..	4,755	..	4,755
Development fund .. .. .	..	..	261	261
Notes on issue .. .. .	..	424,223	..	424,223
Deposits, bills payable and other liabilities—				
Statutory reserve deposit accounts of trading banks ..	193,943	..	..	193,943
Other deposits of trading banks .. .. .	87,516	..	..	87,516
Deposits of savings banks .. .. .	160,095	..	..	160,095
Deposits of overseas institutions .. .. .	9,631	..	..	9,631
Other (including provision for contingencies) ..	148,142	10,389	52,586	(a) 166,326
<b>Total .. .. .</b>	<b>623,428</b>	<b>439,367</b>	<b>59,504</b>	<b>a1,077,508</b>
<b>ASSETS</b>				
Gold and balances held abroad (including money at short call and treasury bills) .. .. .	273,566	221,360	..	494,925
Other overseas securities .. .. .	18,871	14,995	..	33,867
Australian notes and coin and cash balances ..	5,703	..	..	5,703
Australian Government securities (including treasury bills) .. .. .	261,516	202,963	..	464,479
Cheques and bills of other banks .. .. .	2,091	..	..	2,091
Loans, advances, bills discounted, and other assets (after deducting debts considered bad or doubtful) ..	46,625	..	59,504	(a) 61,318
Bank premises at cost less amounts written off ..	3,242	..	..	3,242
Bills receivable and remittances in transit .. ..	7,772	..	..	7,772
All other assets .. .. .	4,042	49	..	(a) 4,111
<b>Total .. .. .</b>	<b>623,428</b>	<b>439,367</b>	<b>59,504</b>	<b>a1,077,508</b>

(a) Inter-departmental accounts totalling £44,791,000 have been offset in the combined figures.

(vii) *Profits.* Net profits of the various Departments of the Reserve Bank for the years ended 30th June, 1958 to 1962 were as follows.

## RESERVE BANK OF AUSTRALIA(a): NET PROFITS

(£'000)

Year	Central Banking Business	Note Issue Department	Rural Credits Department	Mortgage Bank Department (b)	Industrial Finance Department (b)	Total
1957-58 .. .. .	10,103	12,593	184	110	405	23,395
1958-59 .. .. .	4,200	10,935	227	123	512	15,997
1959-60 .. .. .	5,381	10,516	322	..	..	16,219
1960-61 .. .. .	6,705	12,930	434	..	..	20,069
1961-62 .. .. .	6,673	15,751	469	..	..	22,893

(a) Prior to 14th January, 1960, Commonwealth Bank of Australia.

(b) On 14th January, 1960,

amalgamated to form Commonwealth Development Bank.

The distribution of these profits for the years ended 30th June, 1958 to 1962, is given in the following table.

## RESERVE BANK OF AUSTRALIA(a): DISTRIBUTION OF PROFITS

(£'000)

To—	1957-58	1958-59	1959-60	1960-61	1961-62
National Debt Sinking Fund ..	5,052	2,100	..	..	..
Commonwealth of Australia ..	12,593	10,935	13,206	16,283	20,238
Reserve Bank Reserve Fund ..	5,051	2,100	2,691	3,352	2,186
Rural Credits Department—					
Reserve Fund .. .. .	92	114	161	217	235
Development Fund .. ..	92	113	161	217	234
Mortgage Bank Department(b)—					
Reserve Fund .. .. .	110	123	..	..	..
Industrial Finance Department(b)—					
Reserve Fund .. .. .	405	512	..	..	..
Total .. .. .	23,395	15,997	16,219	20,069	22,893

(a) Prior to 14th January, 1960, Commonwealth Bank of Australia.

(b) On 14th January, 1960,

amalgamated to form Commonwealth Development Bank.

(viii) *Central Banking Business—Average Liabilities and Assets.* The average liabilities and assets of the Central Banking Business and Note Issue Department of the Reserve Bank for the years 1957-58 to 1961-62 are shown in the two tables which follow.

RESERVE BANK OF AUSTRALIA(a): CENTRAL BANKING BUSINESS  
(INCLUDING NOTE ISSUE DEPARTMENT)—AVERAGE LIABILITIES

(£'000)

Year	Capital and reserve funds	Australian notes on issue	Statutory reserve deposit accounts of Trading Banks	Other deposits of Trading Banks	Other liabilities	Total liabilities
1957-58 .. .. .	21,618	389,544	328,337	25,602	218,393	983,494
1958-59 .. .. .	26,437	396,019	259,865	24,189	232,866	939,376
1959-60 .. .. .	25,029	413,592	280,786	19,580	246,368	985,355
1960-61 .. .. .	22,790	427,710	294,409	18,478	268,417	1,031,804
1961-62 .. .. .	26,000	427,503	217,733	31,454	332,986	1,035,676

(a) Prior to 14th January, 1960, Commonwealth Bank of Australia.

**RESERVE BANK OF AUSTRALIA(a): CENTRAL BANKING BUSINESS  
(INCLUDING NOTE ISSUE DEPARTMENT)—AVERAGE ASSETS  
(£'000)**

Year	Gold and balances held abroad	Aus- tralian notes and coin	Cheques and bills of other banks	Government and other securities (including Common- wealth treasury bills)	Bills receiv- able and remit- tances in transit	Loans, advances and all other assets	Total assets
1957-58.. ..	461,721	2,026	4,177	478,603	4,488	32,479	983,494
1958-59.. ..	411,509	2,182	4,094	469,064	4,707	47,820	939,376
1959-60.. ..	442,164	3,566	3,084	475,189	4,014	57,338	985,355
1960-61.. ..	365,696	6,280	1,956	571,279	5,749	80,844	1,031,804
1961-62.. ..	492,083	7,985	1,790	465,687	6,270	61,861	1,035,676

(a) Prior to 14th January, 1960, Commonwealth Bank of Australia.

(ix) *Rural Credits Department—Average Liabilities and Assets within Australia.* The following table shows the average liabilities and assets (excluding capital and contingencies) of the Rural Credits Department of the Reserve Bank within Australia for the years 1957-58 to 1961-62.

**RESERVE BANK OF AUSTRALIA(a): RURAL CREDITS DEPARTMENT—  
AVERAGE LIABILITIES AND ASSETS WITHIN AUSTRALIA  
(£'000)**

Year	Total liabilities	Loans advances, etc.	Other assets	Total assets
1957-58.. ..	27,563	33,664	278	33,942
1958-59.. ..	40,272	46,732	282	47,014
1959-60.. ..	54,542	62,605	217	62,822
1960-61.. ..	62,332	72,356	54	72,410
1961-62.. ..	57,606	68,479	46	68,525

(a) Prior to 14th January, 1960, Commonwealth Bank of Australia.

6. The Commonwealth Banking Corporation.—(i) *General.* The Commonwealth Banking Corporation was established under the *Commonwealth Banks Act 1959* and came into being on the 14th January, 1960. The Corporation is the controlling body for the Commonwealth Trading Bank, Commonwealth Savings Bank and Commonwealth Development Bank. The general functions of the corporation are set out in Section 9 of the *Commonwealth Banks Act 1959* which states:

“ It is the duty of the Board, within the limits of its powers, to ensure that the policy of the Trading Bank, of the Savings Bank and of the Development Bank are directed to the greatest advantage of the people of Australia and have due regard to the stability and balanced development of the Australian economy.”

Under the *Banking Act 1959*, the Corporation and its constituent banks are subject to the same central banking controls as are the private trading banks.

(ii) *Management.* The Board of the Corporation consists of the Managing Director of the Corporation, the Deputy Managing Director, the Secretary to the Treasury and eight other members appointed by the Governor-General of whom one is Chairman and another Deputy Chairman. In addition, there is an Executive Committee of the Board for each of the three separate banks. These Executive Committees are appointed by the Treasurer, after consultation with the Board, and are charged with taking such action as is necessary to ensure that effect is given by the respective banks to the policies laid down for them and to any directions given by the Board in relation to their affairs. Under the Board, the Corporation is managed by the Managing Director and the Deputy Managing Director. Each of the three constituent banks of the Corporation has its own statutory functions and responsibilities and its separate identity within the framework of the Corporation. Each bank is managed by a General Manager under the Managing Director of the Corporation.

In paras. 7 and 8 following, details are given of the assets and liabilities of the Commonwealth Development Bank and the Commonwealth Trading Bank. Details for the Commonwealth Savings Bank are shown in § 2 of this division, page 867.

7. **Commonwealth Development Bank of Australia.**—(i) *General.* The Commonwealth Development Bank of Australia was established by the *Commonwealth Banks Act 1959* and commenced operations on 14th January, 1960. It was formed basically from an amalgamation of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank. Under the Act, the Bank is authorized to provide assistance for the development of worthwhile enterprises in the fields of primary and secondary industries which would otherwise be unable to obtain the necessary finance on reasonable and suitable terms and conditions. The Commonwealth Development Bank is managed by a General Manager under the Managing Director of the Commonwealth Banking Corporation, and its policy is determined by the Board of that Corporation. The capital of the Development Bank consists of the capital of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank immediately prior to 14th January, 1960, £5,000,000 provided by the Reserve Bank, £10,000,000 provided by the Commonwealth Government in the 1961–62 Budget, and such other sums as are provided from the Commonwealth Development Bank Reserve Fund. The net profits of the Bank are paid to the Commonwealth Development Bank Reserve Fund.

(ii) *Liabilities and Assets.* The liabilities and assets of the Commonwealth Development Bank at 30th June, 1962, are shown in the following table.

**COMMONWEALTH DEVELOPMENT BANK OF AUSTRALIA:  
LIABILITIES AND ASSETS, 30th JUNE, 1962  
(£'000)**

Liabilities	1962	Assets	1962
Capital .. .. .	25,857	Coin, bullion, notes and cash at bankers .. .. .	370
Commonwealth Development Bank reserve fund .. .. .	6,557	Australian public securities—	
Balances due to other banks .. .. .	14,561	Commonwealth and States—	
Deposits, bills payable and all other liabilities (including amounts provided for contingencies) .. .. .	9,232	Treasury bills .. .. .	400
		Other securities .. .. .	6,006
		Other securities .. .. .	325
		Loans to authorized dealers in the short-term money market .. .. .	500
		Cheques and bills of other banks and balances with and due from other banks .. .. .	299
		Loans, advances and bills discounted (after deducting provisions for debts considered bad or doubtful) .. .. .	48,141
		All other assets .. .. .	166
<b>Total .. .. .</b>	<b>56,207</b>	<b>Total .. .. .</b>	<b>56,207</b>

(iii) *Average Liabilities and Assets within Australia.* The average liabilities and assets (excluding capital and contingencies) of the Commonwealth Development Bank within Australia for the years 1957–58 to 1961–62 are shown in the following table.

**COMMONWEALTH DEVELOPMENT BANK OF AUSTRALIA(a): AVERAGE  
LIABILITIES AND ASSETS WITHIN AUSTRALIA  
(£'000)**

Year	Total liabilities	Loans, advances, etc.		Australian Government securities (including treasury bills)	Other assets	Total assets
		Hire purchase	Other			
1957–58.. .. .	19,070	16,030	14,939	5,390	1,191	37,550
1958–59.. .. .	18,731	17,365	15,075	4,949	985	38,374
1959–60.. .. .	18,339	17,830	15,934	6,784	1,057	41,605
1960–61.. .. .	17,954	18,951	17,535	7,407	1,134	45,027
1961–62.. .. .	17,512	19,944	24,362	2,955	1,235	48,496

(a) Prior to 14th January, 1960, Industrial Finance and Mortgage Bank Departments of the Commonwealth Bank of Australia.

(iv) *Profits.* The net profit of the Commonwealth Development Bank for the year ended 30th June, 1962, was £683,707. The net profit was appropriated to the Commonwealth Development Bank Reserve Fund.

8. **The Commonwealth Trading Bank of Australia.**—(i) *General.* The Commonwealth Trading Bank of Australia was established by the *Commonwealth Bank Act* 1953 and on 3rd December, 1953, took over the business of the General Banking Division of the Commonwealth Bank. It was managed by a General Manager under the Governor of the Commonwealth Bank and its policy was determined by the Board of that Bank. Under the provisions of the *Commonwealth Banks Act* 1959, which came into operation on 14th January, 1960, the Commonwealth Trading Bank was maintained in the same form but was placed under the control of the Commonwealth Banking Corporation. The Commonwealth Trading Bank is managed by a General Manager under the Managing Director of the Commonwealth Banking Corporation. The capital of the Commonwealth Trading Bank is the capital of the Commonwealth Trading Bank immediately prior to 14th January, 1960, £2,000,000 provided by the Reserve Bank, and such other sums as are transferred from the Commonwealth Trading Bank Reserve Fund. Under the Act, the Bank is liable for income taxes. The net profits of the Bank, after provision for taxation, are divided as follows:—  
(a) one-half shall be placed to the credit of the Commonwealth Trading Bank Reserve Fund and (b) one-half shall be paid to the Commonwealth.

(ii) *Liabilities and Assets.* The liabilities and assets of the Commonwealth Trading Bank at 30th June, 1962, are shown in the following table.

**COMMONWEALTH TRADING BANK OF AUSTRALIA: LIABILITIES AND ASSETS, 30th JUNE, 1962**  
(£'000)

Liabilities	1962	Assets	1962
Capital .. .. .	7,429	Coin, bullion, notes and cash at bankers .. .. .	14,965
Reserve Fund .. .. .	4,238	Money at short call overseas .. .. .	4,094
Balances due to other banks .. .. .	1,076	Australian public securities—	
Deposits, bills payable and other liabilities (including provision for contingencies) .. .. .	386,556	Commonwealth and States—	
		Treasury bills .. .. .	2,000
		Other securities .. .. .	74,556
		Local and semi-governmental authorities .. .. .	3,836
		Other public securities .. .. .	437
		Other securities .. .. .	2,314
		Loans to authorized dealers in the short-term money market .. .. .	1,430
		Statutory reserve deposit account with Reserve Bank .. .. .	32,166
		Cheques and bills of other banks and balances with and due from other banks .. .. .	20,897
		Loans, advances and bills discounted (after deducting provisions for debts considered bad or doubtful) .. .. .	161,631
		Bank premises .. .. .	3,471
		Bills receivable and remittances in transit .. .. .	75,635
		All other assets .. .. .	1,867
<b>Total .. .. .</b>	<b>399,299</b>	<b>Total .. .. .</b>	<b>399,299</b>

(iii) *Average Liabilities and Assets within Australia.* The average liabilities and assets (excluding capital and contingencies) of the Commonwealth Trading Bank within Australia for the years 1957–58 to 1961–62 are shown in the following table.

COMMONWEALTH TRADING BANK OF AUSTRALIA: AVERAGE LIABILITIES  
WITHIN AUSTRALIA(a)

(£'000)

Year	Deposits			Balances due to other banks	Bills payable and all other liabilities to the public	Total liabilities
	Not bearing interest	Bearing interest	Total			
1957-58 .. .. .	150,220	54,837	205,057	422	19,523	225,002
1958-59 .. .. .	159,071	67,705	226,776	417	21,623	248,816
1959-60 .. .. .	181,055	73,382	254,437	743	14,461	269,641
1960-61 .. .. .	183,857	87,299	271,156	1,080	2,589	274,825
1961-62 .. .. .	183,690	113,519	297,209	941	2,695	300,845

(a) Includes Territories of Papua and New Guinea.

COMMONWEALTH TRADING BANK OF AUSTRALIA: AVERAGE ASSETS  
WITHIN AUSTRALIA(a)

(£'000)

Year	Cash and cash bal- ances	Commonwealth and State government securities		Other securi- ties	Loans to author- ized dealers in short- term money market	Statu- tory reserve deposit account with Reserve Bank (b)	Balances with other banks (c)	Loans (d), ad- vances and bills dis- counted	All other assets (e)	Total assets
		Treasury bills and seasonal securities	Other							
1957-58 .. .. .	10,829	5,500	46,476	2,511	..	40,193	1,596	107,815	8,396	223,316
1958-59 .. .. .	11,307	4,137	56,677	2,416	1,388	36,450	1,590	122,499	9,161	245,625
1959-60 .. .. .	11,719	3,043	60,189	2,355	2,556	41,429	3,606	133,735	9,211	267,843
1960-61 .. .. .	10,518	1,592	54,007	2,406	4,640	45,835	5,595	147,566	8,812	280,971
1961-62 .. .. .	10,842	2,195	84,455	2,347	2,947	35,704	7,557	149,711	11,216	306,974

(a) Includes Territories of Papua and New Guinea. (b) Prior to 14th January, 1960, special account with Commonwealth Bank. (c) Includes notes, cheques and bills of other banks. (d) Excludes loans to authorized dealers in short-term money market. (e) Includes local government and semi-governmental securities.

(iv) *Profits.* The net profits (after writing off bank premises, £123,730 in 1961 and £131,390 in 1962) of the Commonwealth Trading Bank for the years ended 30th June, 1961 and 1962, were £670,154 and £726,418 respectively. These net profits were distributed one half to the Commonwealth and one half to the Commonwealth Trading Bank Reserve Fund.

9. *Private Trading Banks—Average Liabilities and Assets in Australia.*—The average liabilities and assets within Australia (excluding capital and contingencies) of the Private Trading Banks (see p. 843 for list of banks) for the years 1957-58 to 1961-62 are shown in the following tables.

**PRIVATE TRADING BANKS: AVERAGE LIABILITIES WITHIN AUSTRALIA(a)**  
(£'000)

Year	Deposits			Balances due to other banks	Bills payable and all other liabilities to the public	Total liabilities
	Not bearing interest	Bearing interest	Total			
1957-58 .. .. .	1,045,881	345,415	1,391,296	5,561	18,668	1,415,525
1958-59 .. .. .	1,007,798	368,514	1,376,312	4,121	20,658	1,401,091
1959-60 .. .. .	1,067,592	385,554	1,453,146	4,804	24,008	1,481,958
1960-61 .. .. .	1,035,292	422,193	1,457,485	21,752	28,414	1,507,651
1961-62 .. .. .	989,717	519,649	1,509,366	7,457	28,394	1,545,217

(a) Includes Territories of Papua and New Guinea.

**PRIVATE TRADING BANKS: AVERAGE ASSETS WITHIN AUSTRALIA(a)**  
(£'000)

Year	Cash and cash balances	Commonwealth and State government securities		Other securities	Loans to authorized dealers in short-term money market	Statutory reserve deposit account with Reserve Bank (b)	Balances with other banks (c)	Loans (d), advances and bills discounted	All other assets (e)	Total assets
		Treasury bills and seasonal securities	Other							
1957-58 ..	59,805	39,027	176,152	12,415	..	287,399	18,254	774,302	63,663	1,431,017
1958-59 ..	58,263	38,309	193,546	15,702	6,613	222,809	18,794	807,028	66,257	1,427,321
1959-60 ..	57,731	24,407	236,890	16,484	21,757	238,774	23,195	818,308	69,064	1,506,610
1960-61 ..	61,913	20,733	174,422	19,149	18,971	248,038	25,890	902,465	75,567	1,547,148
1961-62 ..	61,007	32,336	285,648	20,247	27,991	181,558	34,205	852,477	72,077	1,567,546

(a) Includes Territories of Papua and New Guinea. (b) Prior to 14th January, 1960, special account with Commonwealth Bank. (c) Includes notes, cheques and bills of other banks. (d) Excludes loans to authorized dealers in short-term money market. (e) Includes local government and semi-governmental securities.

**10. Other Cheque-paying Banks—Average Liabilities and Assets within Australia.**—The average liabilities and assets within Australia (excluding capital and contingencies) of Other Cheque-paying Banks (see p. 843 for list of these banks) for the years 1957-58 to 1961-62 are shown in the following tables.

**OTHER CHEQUE-PAYING BANKS: AVERAGE LIABILITIES WITHIN AUSTRALIA**  
(£'000)

Year	Deposits			Balances due to other banks	Bills payable and all other liabilities to the public(a)	Total liabilities
	Not bearing interest	Bearing interest	Total			
1957-58 .. .. .	42,013	20,311	62,324	1,384	21,514	85,222
1958-59 .. .. .	40,189	24,694	64,883	1,055	22,962	88,900
1959-60 .. .. .	44,901	27,969	72,870	921	23,838	97,629
1960-61 .. .. .	45,790	35,105	80,895	1,381	25,624	107,900
1961-62 .. .. .	47,109	42,932	90,041	1,766	31,374	123,181

(a) Includes inscribed stock and debentures, Rural Bank of New South Wales and State Bank of South Australia.

**OTHER CHEQUE-PAYING BANKS: AVERAGE ASSETS WITHIN AUSTRALIA (£'000)**

Year	Cash and cash balances	Commonwealth and State government securities		Other securities	Loans to authorized dealers in short-term money market	Statutory reserve deposit account with Reserve Bank (a)	Balances with other banks (b)	Loans, (c) advances and bills discounted	All other assets (d)(e)	Total assets
		Treasury bills and seasonal securities	Other							
1957-58 ..	3,804	4,145	14,532	748	..	745	2,512	81,149	6,727	114,362
1958-59 ..	3,615	824	14,400	3,588	1,223	606	2,920	85,819	7,417	120,412
1959-60 ..	2,970	858	16,952	3,570	6,375	584	2,380	88,546	7,968	130,203
1960-61 ..	2,703	733	18,776	4,507	7,035	537	1,971	94,507	9,012	139,781
1961-62 ..	5,597	404	21,947	3,719	2,347	471	2,427	105,900	9,366	152,178

(a) Prior to 14th January, 1960, special account with Commonwealth Bank. (b) Includes notes, cheques and bills of other banks. (c) Excludes loans to authorized dealers in short-term money market. (d) Includes local government and semi-governmental securities. (e) Includes The Rural and Industries Bank of Western Australia and State Bank of South Australia accounts with State Treasuries.

11. All Cheque-paying Banks.—(i) *Average Liabilities and Assets within Australia.* Particulars of the average liabilities and assets within Australia (excluding capital and contingencies) of all cheque-paying banks in Australia (see p. 843 for list of banks) for the years 1957-58 to 1961-62 are shown in the following tables.

**ALL CHEQUE-PAYING BANKS: AVERAGE LIABILITIES WITHIN AUSTRALIA(a) (£'000)**

Year	Deposits			Balances due to other banks	Bills payable and all other liabilities to the public	Total liabilities
	Not bearing interest	Bearing interest	Total			
1957-58 ..	1,238,114	420,563	1,658,677	7,367	59,705	1,725,749
1958-59 ..	1,207,058	460,913	1,667,971	5,593	65,243	1,738,807
1959-60 ..	1,293,548	486,905	1,780,453	6,468	62,307	1,849,228
1960-61 ..	1,264,939	544,597	1,809,536	24,213	56,627	1,890,376
1961-62 ..	1,220,516	676,100	1,896,616	10,164	62,463	1,969,243

(a) Includes Territories of Papua and New Guinea.

**ALL CHEQUE-PAYING BANKS: AVERAGE ASSETS WITHIN AUSTRALIA(a) (£'000)**

Year	Cash and cash balances	Commonwealth and State government securities		Other securities	Loans to authorized dealers in short-term money market	Statutory reserve deposit account with Reserve Bank (b)	Balances with other banks (c)	Loans, (d) advances and bills discounted	All other assets (e)	Total assets
		Treasury bills and seasonal securities	Other							
1957-58 ..	74,438	48,672	237,160	15,674	..	328,337	22,362	963,266	78,786	1,768,695
1958-59 ..	73,185	43,270	264,623	21,706	9,224	259,865	23,304	1,015,346	82,835	1,793,358
1959-60 ..	72,420	28,308	314,031	22,409	30,688	280,787	29,181	1,040,589	86,243	1,904,656
1960-61 ..	75,134	23,058	247,205	26,062	30,646	294,410	33,456	1,144,538	93,391	1,967,900
1961-62 ..	77,446	34,935	392,050	26,313	33,285	217,733	44,189	1,108,088	92,659	2,026,698

(a) Includes Territories of Papua and New Guinea. (b) Prior to 14th January, 1960, special account with Commonwealth Bank. (c) Includes notes, cheques and bills of other banks. (d) Excludes loans to authorized dealers in short-term money market. (e) Includes local government and semi-governmental securities.



(ii) *Ratios of Assets and Liabilities to Total Deposits.* The following table shows, for all cheque-paying banks, the ratios of selected assets and liabilities to total deposits for the years 1957-58 to 1961-62. The ratios are based on the average liabilities and assets for the years shown.

**ALL CHEQUE-PAYING BANKS: RATIOS OF SELECTED AVERAGE ASSETS AND LIABILITIES TO AVERAGE TOTAL DEPOSITS(a)**

(Per cent.)

Year	Cash and cash balances(b)	Commonwealth and State government securities		Statutory reserve deposit account with Reserve Bank	Loans, (c) advances and bills discounted	Deposits not bearing interest
		Treasury bills and seasonal securities	Other			
1957-58..	4.5	2.9	14.3	19.8	58.1	74.6
1958-59..	4.4	2.6	15.9	15.6	60.9	72.4
1959-60..	4.1	1.6	17.6	15.8	58.5	72.7
1960-61..	4.1	1.3	13.7	16.3	63.3	69.9
1961-62..	4.1	1.8	20.7	11.5	58.4	64.4

(a) Based on deposits and assets within Australia and excludes London Funds. (b) Coin, bullion, Australian notes and cash with Reserve Bank on current account. (c) Excludes loans to authorized dealers in short-term money market.

(iii) *Proportion of Non-Interest Bearing to Total Deposits.* The following table shows, for each State, the proportion of non-interest bearing deposits to total deposits with all cheque-paying banks for each of the years 1957-58 to 1961-62. The ratios are based on the average deposits for the years shown.

**ALL CHEQUE-PAYING BANKS: PROPORTION OF NON-INTEREST BEARING DEPOSITS TO TOTAL DEPOSITS**

(Per cent.)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.(a)
1957-58..	75.4	74.5	76.2	67.8	74.9	78.4	79.3	76.7	74.6
1958-59..	73.0	72.1	74.2	65.4	72.5	75.8	78.7	77.6	72.4
1959-60..	73.0	72.4	74.5	66.6	73.3	76.7	78.3	78.2	72.7
1960-61..	70.0	69.6	70.9	65.5	71.7	74.9	75.6	75.2	69.9
1961-62..	64.5	63.9	64.1	60.9	67.4	68.2	71.7	73.7	64.4

(a) Includes Territories of Papua and New Guinea.

(iv) *Ratio of Advances to Total Deposits.* The ratio of advances to total deposits for each State for the years 1957-58 to 1961-62 is shown in the following table. The ratios are based on the averages of deposits and advances for the years shown.

**ALL CHEQUE-PAYING BANKS: RATIO OF ADVANCES TO TOTAL DEPOSITS**

(Per cent.)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.(a)
1957-58..	64.9	49.8	60.3	42.5	75.7	59.7	36.8	32.3	58.1
1958-59..	67.7	50.9	65.3	47.5	81.6	61.8	41.0	30.5	60.9
1959-60..	64.3	49.1	62.6	50.4	74.0	60.1	39.5	33.0	58.5
1960-61..	67.2	56.8	66.0	58.5	76.9	63.2	35.2	31.2	63.3
1961-62..	63.1	51.4	61.2	55.0	66.5	62.5	31.0	25.1	58.4

(a) Includes Territories of Papua and New Guinea.

12. Commonwealth and Private Trading Banks (Major Trading Banks).—(i) *Selected Average Assets and Liabilities within Australia.* In the following tables, particulars of selected average assets and liabilities of the Commonwealth and Private Trading Banks are shown for each of the years 1957–58 to 1961–62.

**COMMONWEALTH AND PRIVATE TRADING BANKS (MAJOR TRADING BANKS):  
SELECTED AVERAGE ASSETS AND LIABILITIES WITHIN AUSTRALIA(a)**

Year	Cash and cash balances	Commonwealth and State government securities		Statutory reserve deposit account with Reserve Bank	Advances	Total deposits	
		Treasury bills and seasonal securities	Other			Not bearing interest	Bearing interest
1957–58 .. ..	70,634	44,527	222,628	327,592	882,117	1,196,101	400,252
1958–59 .. ..	69,570	42,446	250,223	259,259	929,527	1,166,869	436,219
1959–60 .. ..	69,450	27,450	297,079	280,203	952,043	1,248,647	458,936
1960–61 .. ..	72,431	22,325	228,429	293,873	1,050,031	1,219,149	509,492
1961–62 .. ..	71,849	34,531	370,103	217,262	1,002,188	1,173,407	633,168

(a) Includes Territories of Papua and New Guinea.

(ii) *Ratios of Selected Assets within Australia to Total Deposits.* In the table below, ratios of selected assets to total deposits are given for each of the years 1957–58 to 1961–62.

**COMMONWEALTH AND PRIVATE TRADING BANKS (MAJOR TRADING BANKS):  
RATIOS OF SELECTED ASSETS WITHIN AUSTRALIA(a) TO TOTAL DEPOSITS(b)  
(Per cent.)**

Year	Cash and cash balances (c)	Commonwealth and State government securities		Statutory reserve deposit account with Reserve Bank	Advances	Total deposits	
		Treasury bills and seasonal securities	Other			Not bearing interest	Bearing interest
1957–58 .. ..	4.4	2.8	14.0	20.5	55.3	74.9	25.1
1958–59 .. ..	4.3	2.7	15.6	16.2	58.0	72.8	27.2
1959–60 .. ..	4.1	1.6	17.4	16.4	55.8	73.1	26.9
1960–61 .. ..	4.2	1.3	13.2	17.0	60.7	70.5	29.5
1961–62 .. ..	4.0	1.9	20.5	12.0	55.5	65.0	35.0

(a) Includes Territories of Papua and New Guinea.

(b) Based on averages of assets and liabilities

for the years shown.

(c) Coin, bullion, notes and cash with Reserve Bank on current account.

13. Classification of Advances within Australia—Commonwealth Trading Bank of Australia and Private Trading Banks (Major Trading Banks).—(i) *States, July, 1962.* A classification of bank advances of the Commonwealth and Private Trading Banks outstanding at 11th July, 1962, is shown in the following table.

Resident borrowers cover institutions (including branches of overseas institutions) engaged in business in Australia and persons permanently residing in Australia. Non-resident borrowers cover all other persons and institutions incorporated abroad, which, though represented, do not carry on business in Australia. Advances to resident borrowers have been classified as business advances, advances to public authorities, personal advances and advances to non-profit organizations. Business advances have been further classified to the main industry of the borrower and include advances to partnerships, companies and other institutions engaged in business in Australia, advances to persons actively engaged in business on their own behalf if the advance is mainly for business purposes, advances to mutual, co-operative and benefit societies which distribute their profits or surpluses (if any) to members by way of dividends, rebates on charges for goods and services, or increased benefits. Advances to public authorities cover advances to local and semi-governmental authorities including separately constituted government business undertakings but not the Commonwealth or State Governments. Personal advances cover advances to persons for purposes other than carrying on a business. Advances to non-profit organizations cover advances to organizations which are not carried on for the purpose of making a profit or gain to individual members, any income of the organization being used for the purposes of the organization or for the benefit of the community.

**COMMONWEALTH TRADING BANK OF AUSTRALIA AND PRIVATE TRADING  
BANKS (MAJOR TRADING BANKS): CLASSIFICATION OF ADVANCES  
WITHIN AUSTRALIA(a)—STATES, AS AT 11th JULY, 1962**

Classification	N.S.W. (b) (£'000)	Vic. (£'000)	Q'land (a) (£'000)	S. Aust. (c) (£'000)	W. Aust. (£'000)	Tas. (£'000)	Aus- tralia (a) (£'000)	Pro- portion of total (Per cent.)
<b>RESIDENT BORROWERS</b>								
Business advances clas- sified according to main industry of bor- rower—								
Agriculture, dairying and grazing ..	91,590	45,166	60,777	16,785	20,055	5,228	239,601	22.5
Manufacturing ..	83,427	84,179	22,590	9,814	5,669	3,775	209,454	19.7
Transport, storage and communication ..	4,963	4,148	2,444	795	1,017	608	13,975	1.3
Finance—								
Building and housing societies ..	10,572	11,345	797	290	152	244	23,400	2.2
Other ..	18,508	16,189	2,259	2,076	1,807	1,778	42,617	4.0
Total, Finance ..	29,080	27,534	3,056	2,366	1,959	2,022	66,017	6.2
Commerce—								
Retail trade ..	43,330	31,061	16,785	8,474	7,540	4,186	111,376	10.4
Wholesale trade(d) ..	51,757	31,209	6,688	8,915	5,212	1,441	105,222	9.9
Total, Commerce ..	95,087	62,270	23,473	17,389	12,752	5,627	216,598	20.3
Building and construc- tion ..	12,072	9,525	4,066	1,736	1,875	1,320	30,594	2.8
Other businesses ..	30,811	21,917	14,144	3,879	5,117	1,865	77,733	7.3
Unclassified ..	2,031	3,619	855	1,288	310	345	8,448	0.8
Companies(e) ..	211,660	167,647	44,055	30,474	17,136	10,920	481,888	45.2
Other(e) ..	137,401	90,715	87,350	23,578	31,618	9,870	380,532	35.7
Total ..	349,061	258,358	131,405	54,052	48,754	20,790	862,420	80.9
Advances to public autho- rities(f) ..	7,491	3,809	435	202	527	159	12,623	1.2
Personal advances—								
Building or purchasing own home (individu- als) ..	45,253	22,853	13,560	4,819	6,942	1,946	95,373	8.9
All other (including per- sonal loans) ..	31,493	21,204	10,687	3,886	5,134	1,854	74,258	7.0
Total ..	76,746	44,057	24,247	8,705	12,076	3,800	169,631	15.9
Advances to non-profit organizations ..	9,393	4,775	3,848	928	1,501	490	20,935	2.0
Total Advances to Resident Bor- rowers ..	442,691	310,999	159,935	63,887	62,858	25,239	1,065,609	100.0

**NON-RESIDENT BORROWERS**

Advances to Non- resident borrowers ..	146	79	13	19	17	..	274	..
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**TOTAL ADVANCES TO RESIDENT AND NON-RESIDENT BORROWERS**

Grand Total ..	442,837	311,078	159,948	63,906	62,875	25,239	1,065,883	100.0
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(a) Includes Territories of Papua and New Guinea. (b) Includes Australian Capital Territory.  
(c) Includes Northern Territory. (d) Includes temporary advances to woolbuyers. (e) The  
combined advances for these two groups are distributed over the industries above. (f) Includes  
local government and semi-governmental bodies.

(ii) *Australia, June, 1959, to July, 1962.* The following table provides a classification of advances within Australia (including Territories of Papua and New Guinea) for June, 1959, to July, 1962.

**COMMONWEALTH TRADING BANK OF AUSTRALIA AND PRIVATE TRADING BANKS (MAJOR TRADING BANKS): CLASSIFICATION OF ADVANCES WITHIN AUSTRALIA(a): AMOUNT AND PROPORTION OF EACH CLASS TO TOTAL**

Classification	June(b)—				July(b)—			
	1959		1960		1961		1962	
	Amount (£'000)	Per cent.	Amount (£'000)	Per cent.	Amount (£'000)	Per cent.	Amount (£'000)	Per cent.
<b>RESIDENT BORROWERS</b>								
Business advances classified according to main industry of borrower—								
Agriculture, dairying and grazing ..	229,598	24.6	236,782	22.5	225,283	21.7	239,601	22.5
Manufacturing ..	180,612	19.3	213,274	20.2	228,120	22.0	209,454	19.7
Transport, storage and communication ..	15,169	1.6	16,523	1.6	14,338	1.4	13,975	1.3
Finance—								
Building and housing societies ..	24,500	2.6	24,852	2.4	25,816	2.5	23,400	2.2
Other ..	24,970	2.7	40,142	3.8	46,391	4.4	42,167	4.0
Total, Finance ..	49,470	5.3	64,994	6.2	72,207	6.9	66,017	6.2
Commerce—								
Retail trade ..	92,614	10.0	108,982	10.4	107,448	10.3	111,376	10.4
Wholesale trade(c) ..	89,867	9.6	102,521	9.7	109,938	10.6	105,222	9.9
Total, Commerce ..	182,481	19.6	211,503	20.1	217,386	20.9	216,598	20.3
Building and construction ..	27,434	2.9	29,283	2.7	25,252	2.4	30,594	2.8
Other businesses ..	64,191	6.9	74,652	7.1	72,104	6.9	77,733	7.3
Unclassified ..	5,195	0.6	5,126	0.5	5,692	0.6	8,448	0.8
Companies(d) ..	375,542	40.2	458,813	43.5	505,128	48.6	481,888	45.2
Other(d) ..	378,608	40.6	393,324	37.4	355,254	34.2	380,532	35.7
Total ..	754,150	80.8	852,137	80.9	860,382	82.8	862,420	80.9
Advances to Public Authorities(e) ..	11,311	1.2	12,764	1.2	14,066	1.3	12,623	1.2
Personal advances classified according to main purpose of advance—								
Building or purchasing own home (individuals) ..	91,471	9.8	97,935	9.3	85,061	8.2	95,373	8.9
All other (including personal loans) ..	59,711	6.4	72,211	6.9	60,010	5.8	74,258	7.0
Total ..	151,182	16.2	170,146	16.2	145,071	14.0	169,631	15.9
Advances to non-profit organizations ..	16,387	1.8	18,507	1.7	19,287	1.9	20,935	2.0
Total Advances to Resident Borrowers ..	933,030	100.0	1,053,554	100.0	1,038,806	100.0	1,065,609	100.0

**NON-RESIDENT BORROWERS**

Advances to Non-Resident Borrowers ..	227	..	239	..	287	..	274	..
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**TOTAL ADVANCES TO RESIDENT AND NON-RESIDENT BORROWERS**

Grand Total ..	933,257	100.0	1,053,793	100.0	1,039,093	100.0	1,065,883	100.0
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(a) Includes Territories of Papua and New Guinea. (b) Information for July, 1961, and 1962, was compiled uniformly by all banks as at the second Wednesday of these months. Information for earlier periods was not compiled at a uniform point of time but at various dates centring around the end of the month shown. (c) Includes temporary advances to wool-buyers. (d) The combined advances for these two groups are distributed over the industries above. (e) Includes local government and semi-governmental bodies.

14. Classification of Bank Deposits within Australia—Commonwealth Trading Bank of Australia and Private Trading Banks (Major Trading Banks).—A classification of bank deposits (excluding deposits of Commonwealth and State Governments) of the Commonwealth and Private Trading Banks for June, 1959, to July, 1962, is given in the following table. The classification is similar to that used for advances (for details see page 855).

**COMMONWEALTH TRADING BANK OF AUSTRALIA AND PRIVATE TRADING BANKS (MAJOR TRADING BANKS): CLASSIFICATION OF DEPOSITS(a) WITHIN AUSTRALIA(b): AMOUNT AND PROPORTION OF EACH CLASS TO TOTAL**

Classification	June(c)—				July(c)—			
	1959		1960		1961		1962	
	Amount (£mill.)	Per cent.	Amount (£mill.)	Per cent.	Amount (£mill.)	Per cent.	Amount (£mill.)	Per cent.

**RESIDENT DEPOSITORS**

Business deposits classified according to main industry of depositor—								
Agriculture, grazing, dairying .. ..	335.2	21.2	344.3	20.8	327.6	20.2	332.6	18.9
Manufacturing ..	142.4	9.0	147.7	8.9	120.8	7.4	130.0	7.4
Transport, storage and communication ..	31.7	2.0	32.2	2.0	29.7	1.8	30.1	1.7
Finance .. ..	134.3	8.3	130.3	7.9	123.8	7.6	139.2	7.9
Commerce .. ..	161.5	10.2	160.7	9.7	142.0	8.7	158.5	9.0
Building and construction .. ..	42.5	2.7	45.5	2.7	48.3	3.0	52.2	3.0
Other businesses ..	177.1	11.2	197.8	11.9	185.0	11.4	203.5	11.6
Unclassified .. ..	11.0	0.7	13.7	0.8	13.5	0.8	15.0	0.8
<i>Companies(d) ..</i>	<i>367.3</i>	<i>23.2</i>	<i>383.7</i>	<i>23.2</i>	<i>337.2</i>	<i>20.7</i>	<i>405.2</i>	<i>23.0</i>
<i>Other(d) ..</i>	<i>668.4</i>	<i>42.3</i>	<i>688.5</i>	<i>41.5</i>	<i>653.5</i>	<i>40.2</i>	<i>655.9</i>	<i>37.3</i>
<i>Total .. ..</i>	<i>1,035.7</i>	<i>65.5</i>	<i>1,072.2</i>	<i>64.7</i>	<i>990.7</i>	<i>60.9</i>	<i>1,061.1</i>	<i>60.3</i>
Deposits of public authorities .. ..	73.4	4.6	74.6	4.5	81.8	5.0	97.3	5.6
Personal deposits ..	419.6	26.5	450.9	27.2	481.4	29.6	518.8	29.5
Deposits of non-profit organizations ..	43.3	2.7	48.6	2.9	59.0	3.7	67.2	3.8
<i>Total, Resident Depositors ..</i>	<i>1,572.0</i>	<i>99.3</i>	<i>1,646.3</i>	<i>99.3</i>	<i>1,612.9</i>	<i>99.2</i>	<i>1,744.4</i>	<i>99.2</i>

**NON-RESIDENT DEPOSITORS**

<i>Total, Non-resident Depositors ..</i>	<i>10.0</i>	<i>0.7</i>	<i>10.9</i>	<i>0.7</i>	<i>12.8</i>	<i>0.8</i>	<i>14.7</i>	<i>0.8</i>
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**TOTAL—ALL DEPOSITORS**

<i>Grand Total ..</i>	<i>1,582.0</i>	<i>100.0</i>	<i>1,657.2</i>	<i>100.0</i>	<i>1,625.7</i>	<i>100.0</i>	<i>1,759.1</i>	<i>100.0</i>
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(a) Excludes deposits of Commonwealth and State Governments. (b) Includes Territories of Papua and New Guinea. (c) Information for July, 1961 and 1962, was compiled uniformly by all banks as at the second Wednesday of these months. Information for earlier periods was not compiled at a uniform point of time but at various dates centring around the end of the month shown. (d) The combined deposits of these two groups are distributed over the industries above.

15. New and Increased Lending Commitments and Overdraft Limits—Commonwealth and Private Trading Banks (Major Trading Banks).—Particulars of new and increased lending commitments and overdraft limits of the Commonwealth and Private Trading Banks are shown hereunder.

**COMMONWEALTH TRADING BANK OF AUSTRALIA AND PRIVATE TRADING BANKS (MAJOR TRADING BANKS): NEW AND INCREASED LENDING COMMITMENTS AND OVERDRAFT LIMITS**

Source: Reserve Bank of Australia  
(£ million)

New and increased lending commitments			Overdraft limits(a)	
For period ending second Wednesday of—	Weekly average		At second Wednesday of(b)—	Total outstanding
1961—			1960—	
August .. .. .	7.5		July .. .. .	1,682.4
September .. .. .	8.4		October .. .. .	1,688.2
October .. .. .	9.4			
November .. .. .	11.1		1961—	
December .. .. .	11.5		January .. .. .	1,623.6
1962—			April .. .. .	1,564.9
January .. .. .	8.6		July .. .. .	1,571.5
February .. .. .	9.4		September .. .. .	1,586.7
March .. .. .	12.5		October .. .. .	1,605.5
April .. .. .	12.9		November .. .. .	1,620.0
May .. .. .	10.2		December .. .. .	1,646.8
June .. .. .	9.5			
July .. .. .	9.4		1962—	
August .. .. .	10.8		January .. .. .	1,651.4
September .. .. .	8.9		February .. .. .	1,665.2
October .. .. .	8.9		March .. .. .	1,682.5
November .. .. .	10.1		April .. .. .	1,701.1
December .. .. .	10.6		May .. .. .	1,713.7
			June .. .. .	1,721.9
			July .. .. .	1,732.8
			August .. .. .	1,744.3
			September .. .. .	1,752.1
			October .. .. .	1,752.9
			November .. .. .	1,766.5
			December .. .. .	1,770.9

(a) Excludes limits in respect of temporary advances to woolbuyers and term loans to July, 1961—at the beginning of the month.

(b) Prior

The series on new and increased lending commitments has been compiled from information supplied by the major trading banks as at the second Wednesday of each month. Generally the series aims to cover all new and increased lending commitments entered into by banks which require the approval of a formal limit on a customer's overdraft account. Commitments in respect of temporary advances to woolbuyers and in respect of term loans are excluded. The figures represent gross new lending commitments of banks and do not take account of cancellations and reductions of existing limits. Figures for cancellations and reductions of existing limits can be obtained from this series (after adjusting the weekly average to a monthly basis) in conjunction with that of overdraft limits. However, these derived figures should be regarded as an approximation only, since there are unavoidable differences in the basis of the compiling of the two series.

16. Interest on Deposits: Rates—Cheque-paying Banks.—Particulars of interest rates since 1952 for fixed deposits are shown in the following table.

**BANK FIXED DEPOSIT RATES: AUSTRALIA**  
(Per cent. per annum)

Date from which operative	Deposits for—			
	Three months	Six months	Twelve months	Twenty-four months
29th July, 1952 .. .. .	1	1½	1½	(a) 1½
1st January, 1955 .. .. .	1½	1½	1½	2
15th March, 1956 .. .. .	2½	2½	2½	3
4th December, 1956 .. .. .	2½	2½	2½	3½
17th November, 1960 .. .. .	4(b)		4½	(c)
1st July, 1961 .. .. .	4(b)		4½	(c)
13th April, 1962 .. .. .	3½(b)		4	(c)

(a) On first £10,000; rate on amounts in excess of £10,000 was 1½ per cent. (b) Three months but less than twelve months. (c) The maximum period for fixed deposits was 12 months.

17. **Clearing House Returns—Average Weekly Clearings.**—The average weekly clearings in each capital city for the years 1957–58 to 1961–62 are shown in the following table.

**BANK CLEARINGS(a): AVERAGE WEEKLY CLEARINGS**  
(£'000)

Year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Total
1957–58 ..	124,172	114,854	25,835	24,099	15,598	4,427	308,985
1958–59 ..	135,387	128,870	27,227	25,299	15,786	4,893	337,462
1959–60 ..	167,858	156,625	34,202	30,461	19,579	6,062	414,787
1960–61 ..	190,929	172,942	40,263	35,773	23,255	7,122	470,284
1961–62 ..	200,293	194,352	41,190	39,209	24,709	7,101	506,854

(a) Excludes transactions connected with the issue and redemption of Treasury Bills.

18. **Debits to Customers' Accounts—Cheque-paying Banks.**—Statistics of debits to customers' accounts have been collected since September, 1945. Generally, they represent the total of all cheques drawn by the customers of the banks. In the following table, the average weekly debits to customers' accounts of all cheque-paying banks (including the Rural Credits Department of the Reserve Bank and the Commonwealth Development Bank) are shown for each State for the years 1957–58 to 1961–62. In this table, debits to accounts of Australian Governments in capital cities are excluded, as they are subject to abnormal influences and are not uniform for each State.

**CHEQUE-PAYING BANKS: AVERAGE WEEKLY DEBITS TO CUSTOMERS' ACCOUNTS**

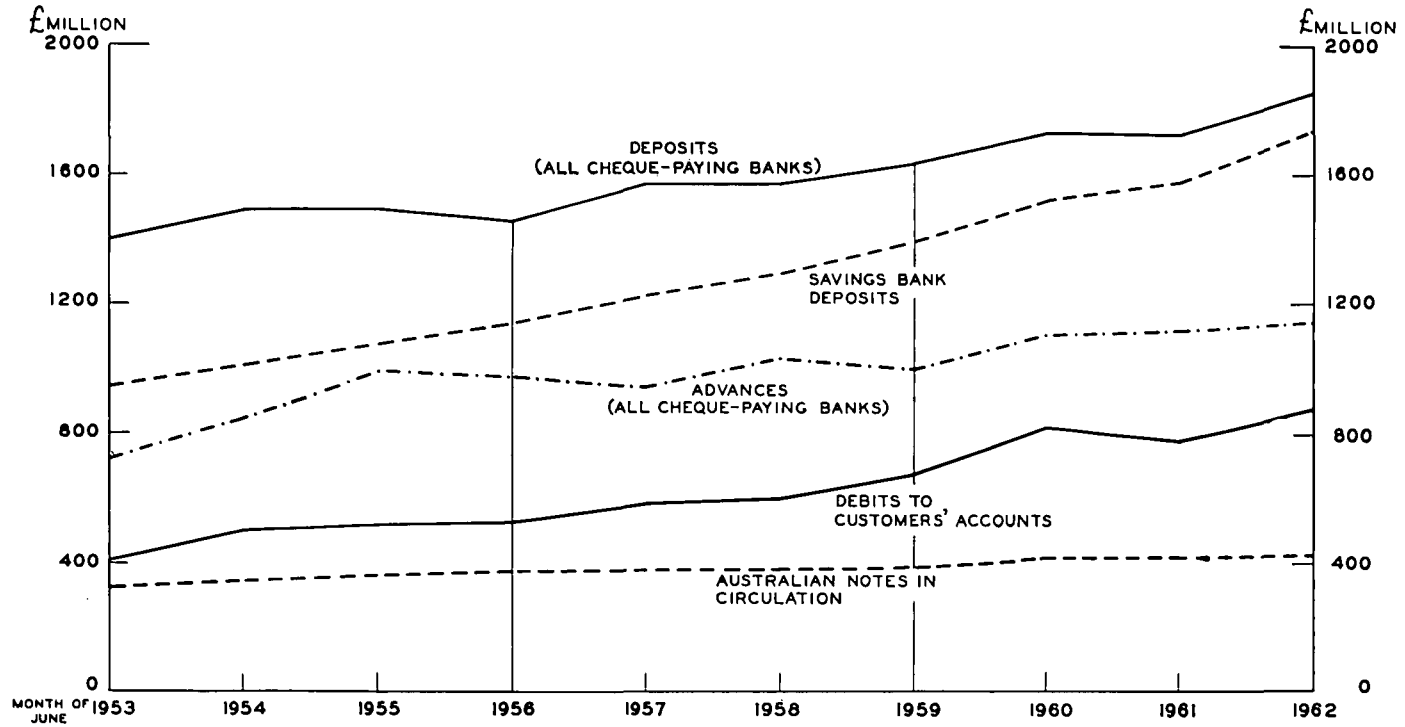
(Excluding debits to Australian government accounts in capital cities)

(£'000)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1957–58 ..	230,335	207,059	65,655	44,276	30,215	12,930	724	1,533	592,727
1958–59 ..	248,904	224,729	70,253	46,180	30,731	13,830	799	1,979	637,405
1959–60 ..	296,295	264,561	79,172	53,374	34,852	15,483	942	2,678	747,357
1960–61 ..	322,466	282,936	81,901	58,011	37,839	16,236	1,020	3,363	803,772
1961–62 ..	326,995	295,018	82,181	58,088	40,178	16,040	1,105	3,951	823,556

19. **Rates of Exchange.**—(i) *Oversea Exchange Rates.* In the following table, the par of exchange (based on par values agreed with the International Monetary Fund) and average telegraphic transfer selling rates of exchange for Sydney on a number of oversea countries are shown. Generally, the averages, which are averages of daily quotations, are based on rates quoted by the Commonwealth Trading Bank, but where these were not available rates issued by the Department of Customs and Excise have been used.

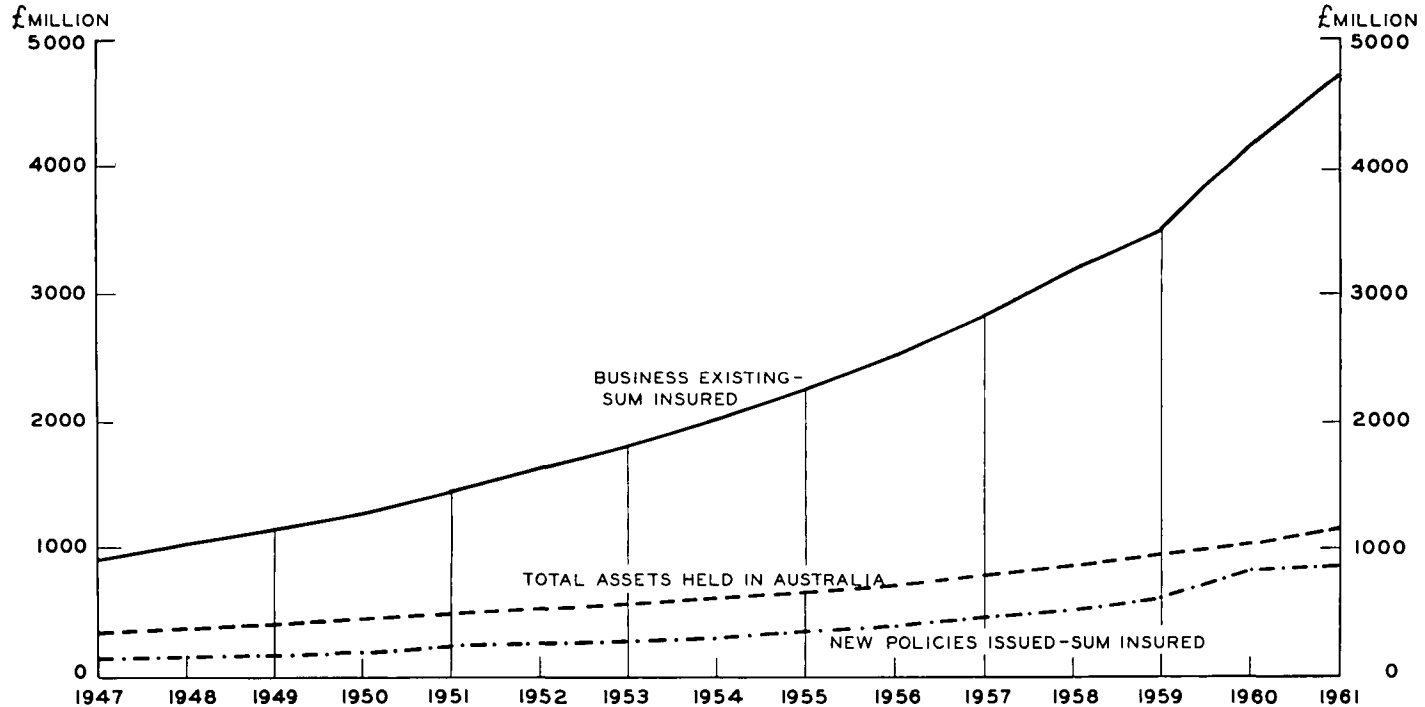
# BANKING: AUSTRALIA 1953 TO 1962





# LIFE INSURANCE: AUSTRALIA

1947 TO 1961



**OVERSEA EXCHANGE RATES: PAR OF EXCHANGE AND AVERAGE TELEGRAPHIC  
TRANSFER SELLING RATES FOR SYDNEY ON OVERSEA COUNTRIES**

Country	Basis of quotation	Par of exchange (a)	Selling rate, 1961-62	Country	Basis of quotation	Par of exchange (a)	Selling rate, 1961-62
Belgium ..	Francs to £A.1 ..	112.000	110.680	Netherlands ..	Guilders to £A.1	8.109	8.024
Canada ..	Dollars to £A.1 ..	(b)	2.339	New Zealand ..	£A. to £NZ.100 ..	124.147	124.538
Ceylon ..	Pence A. to Rupee ..	22.500	22.797	Norway ..	Kroner to £A.1 ..	16.000	15.860
Denmark ..	Kroner to £A.1 ..	15.472	15.340	Pakistan ..	Pence A. to Rupee ..	22.500	22.719
Fiji ..	£A. to £F.100 ..	112.613	113.000	Portugal ..	Escudos to £A.1	64.400	63.880
Finland ..	Markka to £A.1 ..	716.800	717.930	Singapore ..	Pence A. to Dollar	35.000	35.335
France ..	New Francs to £A.1	11.059	10.930	South Africa ..	Rands to £A.1(d)	1.600	1.590
French Oceania	Francs to £A.1 ..	201.073	196.000	Sweden ..	Kronor to £A.1 ..	11.588	11.488
Germany, Fed.	Deutschmarks to			Switzerland ..	Francs to £A.1 ..	(c)	9.641
Rep. of ..	£A.1 ..	8.960	8.898	United Arab			
Hong Kong ..	Pence A. to Dollar	18.750	18.878	Republic ..	£E. to £A.1 ..	0.780	0.775
India ..	Pence A. to Rupee	22.500	22.719	United Kingdom	£A. to £Stg.100	125.000	125.500
Indonesia ..	Rupiahs to £A.1 ..	(b)	100.39	United States of			
Italy ..	Lira to £A.1 ..	1,400	1,381	America ..	Dollars to £A.1 ..	2.240	2.236
Japan ..	Yen to £A.1 ..	806.399	804.830	U.S.S.R. ..	Roubles to £A.1 ..	(c)	2.008

(a) As at 30th June, 1962, established under International Monetary Fund Agreement. (b) No par value established. (c) Not a member of International Monetary Fund. (d) Unit of currency changed on 15th February, 1961 on basis of £S.A.1 = 2 Rands.

(ii) *Trading Bank Charges.* As from October, 1962, the trading banks instituted a system of charges on current accounts, and abolished the interstate exchange rates obtaining prior to this date. Details of interstate exchange rates prior to October, 1962, may be found in Official Year Book No. 48, page 785.

Charges on current account comprise a basic maintenance fee, a ledger activity fee and a cheque collection fee, each calculated on a quarterly basis and debited as a composite item to accounts four times a year. Details of these charges are shown below.

*Quarterly Charge.*

(a) *Basic maintenance current account fee, 5s. quarterly (non-rebatable).*

(b) *Ledger activity fee.* Up to ½ folio (20 entries), 2s. 6d.; over ½ folio to 1 folio, 7s. 6d.; over 1 folio to 2 folios, £1; over 2 folios to 3 folios, £2 5s.; over 3 folios to 4 folios, £3 10s.; over 4 folios to 5 folios, £4 15s.; over 5 folios to 6 folios, £6; over 6 folios to 7 folios, £7; over 7 folios to 15 folios, £7 plus 17s. 6d. per folio or part thereof exceeding 7; over 15 folios to 35 folios, £14 plus 15s. per folio or part thereof exceeding 15; over 35 folios, £29 plus 10s. per folio or part thereof exceeding 35. Rebates will be allowed for minimum quarterly credit balances as follows:—£300, 1 free folio; £600, 2 free folios; £1,000, 3 free folios; £1,600, 4 free folios; £2,500, 5 free folios; thereafter 1 additional free folio for each £500 minimum credit balance. Where rebates are applicable, the number of free folios will be deducted before the activity fee is calculated.

(c) *Collection fee on cheques, etc., deposited.* Up to 20 cheques per quarter, free; 21 to 100, 5s. plus 2s. 6d. per ten cheques or part thereof exceeding 20; 101 to 500, £1 5s. plus 12s. 6d. per each 50 or part thereof exceeding 100; 501 to 1,000, £6 5s. plus £1 5s. for each 100 or part thereof exceeding 500; 1,001 to 10,000, £12 10s. plus £6 per each 500 or part thereof exceeding 1,000; 10,001 to 50,000, £120 plus £7 10s. per each 1,000 or part thereof exceeding 10,000; 50,001 to 100,000, £425 plus £25 per each 5,000 or part thereof exceeding 50,000; 100,001 to 150,000, £675 plus £40 per each 10,000 or part thereof exceeding 100,000; over 150,000, £875 plus £30 per each 20,000 or part thereof exceeding 150,000.

## § 2. Savings Banks

1. *General.*—For information as to the origin of savings banks in Australia and the facilities currently available, see Official Year Book No. 46, page 779 and earlier issues.

During 1961-62, three new savings banks, the E.S. and A. Savings Bank Ltd., The National Bank Savings Bank Ltd., and the Bank of Adelaide Savings Bank Ltd., were established. These banks are associated with and operate from the same premises as existing private

trading banks. Savings banks operating at 30th June, 1962, were—the Commonwealth Savings Bank and the Australian and New Zealand Savings Bank Ltd. (in all States and Territories), the Bank of Adelaide Savings Bank Ltd. (all States except Tasmania), the Bank of New South Wales Savings Bank Ltd. (in all States and Territories except South Australia and Tasmania), the C.B.C. Savings Bank Ltd. (in all States except South Australia and Tasmania, and in the Australian Capital Territory), the E.S. and A. Savings Bank Ltd. (in all States and Territories), The National Bank Savings Bank Ltd. (in all States and Territories), The State Savings Bank of Victoria, The Savings Bank of South Australia, The Rural and Industries Bank of Western Australia, and the two trustee banks, The Launceston Bank for Savings and The Hobart Savings Bank.

All savings banks, including trustee savings banks, but not State savings banks, are subject to the *Banking Act* 1959. Details of this Act and the special provisions applyin tgo savings banks are given in Official Year Book No. 46, pages 759–60.

2. **Branches and Agencies.**—The number of branches and agencies in Australia of the various savings banks at 30th June, 1962, are given in the following table.

**ALL SAVINGS BANKS: NUMBER OF BRANCHES AND AGENCIES AT 30th JUNE, 1962**

Bank	Branches	Agencies
Commonwealth Savings Bank .. .. .	778	7,250
Australia and New Zealand Savings Bank Ltd. .. .. .	509	662
The Bank of Adelaide Savings Bank Ltd. .. .. .	83	83
Bank of New South Wales Savings Bank Ltd. .. .. .	771	2,636
C.B.C. Savings Bank Ltd. .. .. .	395	86
E.S. & A. Savings Bank Ltd. .. .. .	368	124
The National Bank Savings Bank Ltd. .. .. .	609	295
The State Savings Bank of Victoria .. .. .	423	648
The Savings Bank of South Australia .. .. .	110	641
The Rural and Industries Bank of Western Australia .. .. .	40	231
Launceston Bank for Savings .. .. .	22	44
The Hobart Savings Bank .. .. .	20	24
<b>Total .. .. .</b>	<b>4,128</b>	<b>12,724</b>

3. **Number of Operative Accounts.**—The following table shows the number of operative savings bank accounts in existence at the end of June, 1961 and 1962. It should be noted that these figures relate to the number of accounts and not necessarily to the number of depositors.

**ALL SAVINGS BANKS: NUMBER OF OPERATIVE ACCOUNTS(a)**

State or Territory	At end of June—	
	1961	1962
New South Wales .. .. .	3,151,362	3,323,975
Victoria .. .. .	2,822,324	2,984,220
Queensland .. .. .	1,187,322	1,250,343
South Australia .. .. .	962,673	1,019,184
Western Australia .. .. .	577,619	625,070
Tasmania .. .. .	316,794	331,847
Northern Territory .. .. .	16,645	19,116
Australian Capital Territory .. .. .	38,816	45,072
<b>Australia .. .. .</b>	<b>9,073,555</b>	<b>9,598,827</b>

(a) Excludes school bank accounts and inoperative accounts, i.e. accounts of less than £1 which have not been operated on for more than two years.

4. **Business Transacted.**—The following table shows details of the business transacted in Australia by savings banks during the years ended 30th June, 1961 and 1962.

### ALL SAVINGS BANKS: BUSINESS TRANSACTED IN AUSTRALIA

(£'000)

State or Territory	Year ended June, 1961				Year ended June, 1962			
	Deposits during year	Withdrawals during year	Interest added to accounts during year	Amount on deposit at end of June, 1961	Deposits during year	Withdrawals during year	Interest added to accounts during year	Amount on deposit at end of June, 1962
New South Wales ..	670,234	658,632	15,977	569,151	731,475	694,706	19,101	625,021
Victoria ..	819,789	816,158	14,245	517,468	669,044	632,434	16,771	570,849
Queensland ..	219,682	220,487	5,350	187,131	236,953	224,568	6,336	205,852
South Australia ..	190,260	194,716	5,201	166,743	206,699	198,310	5,858	180,990
Western Australia ..	96,167	96,331	2,253	80,712	111,831	104,692	2,677	90,528
Tasmania ..	45,028	45,429	1,434	47,388	48,283	46,099	1,658	51,230
Northern Territory ..	4,247	4,175	72	2,726	4,915	4,644	88	3,085
Australian Capital Territory ..	10,626	10,055	165	6,132	12,984	11,995	210	7,331
Australia ..	2,056,033	2,045,983	44,697	1,577,451	2,022,184	1,917,448	52,699	1,734,886

5. **Depositors' Balances.**—The amount at credit of depositors' accounts and the average per head of population for each State and Territory at the end of June, 1958 to 1962 are shown in the following table.

### ALL SAVINGS BANKS: DEPOSITORS' BALANCES IN AUSTRALIA

At end of June—	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	N. Terr.	A.C.T.	Australia
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#### COMMONWEALTH SAVINGS BANK

(£'000)

1958 ..	367,439	117,805	132,545	35,222	53,613	16,119	4,820		727,563
1959 ..	380,962	122,577	138,924	37,374	54,987	17,020	5,364		757,208
1960 ..	402,398	131,243	145,706	39,763	57,078	18,175	5,953		800,316
1961 ..	413,439	133,672	146,832	39,407	56,966	18,197	6,612		815,125
1962 ..	438,083	142,562	155,775	41,904	60,301	19,085	7,426		865,136

#### STATE SAVINGS BANKS

(£'000)

1958 ..	..	272,807	..	113,636	3,507	..	..	..	389,550
1959 ..	..	281,296	..	119,778	4,471	..	..	..	405,545
1960 ..	..	298,107	..	123,930	5,793	..	..	..	427,830
1961 ..	..	308,244	..	124,305	6,564	..	..	..	439,113
1962 ..	..	331,781	..	130,433	9,213	..	..	..	471,427

#### TRUSTEE SAVINGS BANKS: HOBART AND LAUNCESTON

(£'000)

1958 ..	..	..	..	..	..	24,122	..	..	24,122
1959 ..	..	..	..	..	..	25,442	..	..	25,442
1960 ..	..	..	..	..	..	27,257	..	..	27,257
1961 ..	..	..	..	..	..	27,969	..	..	27,969
1962 ..	..	..	..	..	..	29,258	..	..	29,258

ALL SAVINGS BANKS: DEPOSITORS' BALANCES IN AUSTRALIA—*continued.*

At end of June—	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	N. Terr.	A.C.T.	Australia
PRIVATE SAVINGS BANKS (£'000)									
1958..	81,579	43,019	20,699	..	8,828	..	1,083		155,208
1959..	107,311	54,581	27,729	..	12,041	..	1,475		203,137
1960..	139,174	70,242	36,880	2,305	15,752	923	2,025		267,301
1961..	155,712	75,552	40,299	3,031	17,182	1,222	2,246		295,244
1962..	186,938	96,506	50,077	8,653	21,014	2,887	2,990		369,065

ALL SAVINGS BANKS  
(£'000)

1958..	449,018	433,631	153,244	148,858	65,948	40,241	2,098	3,805	1,296,843
1959..	488,273	458,454	166,653	157,152	71,499	42,462	2,239	4,600	1,391,332
1960..	541,572	499,592	182,386	165,998	78,623	46,355	2,582	5,396	1,522,704
1961..	569,151	517,468	187,131	166,743	80,712	47,388	2,726	6,132	1,577,451
1962..	625,021	570,849	205,852	180,990	90,528	51,230	3,085	7,331	1,734,886

PER HEAD OF POPULATION  
(£. s. d.)

1958..	121 12	5 159 10	3 106 9	7 165 19	9 94 5	5 120 16	5 94 18	9 92 8	11 131 15	0
1959..	129 17	4 164 11	3 113 10	1 170 13	0 100 8	2 125 2	4 92 18	11 99 17	1 138 7	1
1960..	141 6	3 174 16	10 122 1	1 175 12	0 108 17	8 134 15	10 101 0	2 103 1	1 148 3	14
1961..	145 6	1 176 12	1 123 4	1 172 0	4 109 11	5 135 5	3 100 12	7 104 5	0 150 2	3
1962..	157 3	5 190 16	6 133 8	10 182 18	7 119 19	9 143 10	7 111 0	4 111 11	10 162 1	3

6. **Cheque Accounts.**—At most savings banks, cheque accounts are available to non-profit organizations such as friendly, co-operative and charitable societies. Similar facilities are also available to other depositors at the State Savings Bank of Victoria. Details of the transactions on these accounts during the year ended June, 1962 (excluding the Savings Bank of South Australia), together with the number of operative accounts and the amount on deposit at the end of June, 1962, were as follows:—Deposits during the year, £437,076,074; withdrawals during the year £431,569,035; interest added during the year, £1,004,372; amount on deposit at end of year, £50,395,422; number of operative accounts at the end of year, 223,658. These figures are included in the statistics in previous paragraphs.

7. **School Banking.**—With the object of encouraging principles of thrift among children, agencies of the savings banks have been established at most of the schools throughout Australia. Particulars of operative accounts within Australia at the end of June, 1958 to 1962 appear below.

## SCHOOL SAVINGS BANKS: AUSTRALIA

At end of June—	Number of school agencies	Number of operative accounts	Deposits	Deposits per operative account
			£	£ s. d.
1958..	..	..	..	..
1959..	..	..	..	..
1960..	..	..	..	..
1961..	..	..	..	..
1962..	..	..	..	..

8. **Assets.**—The assets within Australia of all savings banks as at the end of June, 1961 and 1962 are shown in the following table.

**ALL SAVINGS BANKS: ASSETS WITHIN AUSTRALIA(a)**

(£'000)

Particulars	At end of June—	
	1961	1962
Coin, bullion and Australian notes .. .. .	4,336	4,934
Deposits with Reserve Bank .. .. .	135,683	154,616
Deposits in Australia with Trading Banks .. .. .	47,441	60,786
Australian public securities—		
Commonwealth and States (including treasury bills) ..	789,332	832,565
Local and semi-governmental authorities .. .. .	312,235	352,728
Other securities .. .. .	..	450
Loans to authorized dealers in the short-term money market	7,625	13,790
Cheques and bills of other banks and balances with and due from other banks .. .. .	231	119
Loans, advances and bills discounted—		
Housing .. .. .	312,144	345,744
Other .. .. .	26,685	28,603
Bank premises, furniture and sites .. .. .	21,282	23,744
Bills receivable and all other assets .. .. .	5,036	5,884
<b>Total .. .. .</b>	<b>1,662,030</b>	<b>1,823,963</b>

(a) Includes assets in Territories of Papua, New Guinea and Norfolk Island.

9. **War Savings and Savings Certificates.**—Sales of savings certificates and stamps under the War Savings and Savings Certificate schemes, particulars of which were given in earlier issues of the Official Year Book (see No. 37, page 586), were discontinued after 31st January, 1949, except for some sales made to wind up savings groups, etc. The total value of war savings and savings certificates outstanding at 30th June in each of the last five years was:—1958, £16,004,000; 1959, £10,633,000; 1960, £8,205,000; 1961, £5,989,000; 1962, £2,533,000.

10. **Commonwealth Savings Bank of Australia.**—(i) *General.* The Commonwealth Savings Bank of Australia was established as a separate institution on 9th June, 1928, having functioned previously as a department of the Commonwealth Bank (for particulars of the origin of the Savings Bank Department and the extension of its services see Official Year Book No. 46, page 783, and earlier issues of this Year Book). It has since then operated independently, publishing its own balance-sheets and profit and loss accounts. The *Commonwealth Bank Act* 1927, which provided for the establishment of the Commonwealth Savings Bank as a separate institution, provided for a Commission of three members to manage the savings bank. This Commission was never appointed, and the *Commonwealth Bank Act* 1945 placed the control of the Commonwealth Savings Bank under the Governor of the Commonwealth Bank. Under the provisions of the *Commonwealth Banks Act* 1959, which came into operation on 14th January, 1960, the Commonwealth Savings Bank was maintained in the same form, but was placed under the control of the Commonwealth Banking Corporation (see also para. 6, p. 848). Under the *Banking Act* 1959, the Commonwealth Savings Bank is subject to the same conditions as apply to the private savings banks and the trustee savings banks.

(ii) *Balance-sheet, 30th June, 1961 and 1962.* Particulars of the liabilities and assets of the Commonwealth Savings Bank as at 30th June, 1961 and 1962, are as follows.

**COMMONWEALTH SAVINGS BANK(a): LIABILITIES AND ASSETS, 30th JUNE,  
1961 AND 1962  
(£'000)**

Liabilities	1961	1962	Assets	1961	1962
Reserve fund .. ..	11,425	11,778	Coin, bullion and Australian notes ..	1,335	1,447
Depositors' balances ..	822,399	872,853	Deposits with Reserve Bank .. ..	88,450	96,300
Bills payable and all other liabilities .. ..	30,424	27,416	Deposits in Australia with Trading Banks ..	11,731	12,384
			Australian public securities—		
			Commonwealth and States (including treasury bills) ..	492,616	505,432
			Local and semi-governmental authorities .. ..	95,682	103,320
			Other public securities .. ..	934	934
			Loans to authorized dealers in the short-term money market ..	3,280	4,050
			Loans and advances (after deducting provisions for debts considered bad or doubtful) .. ..	148,394	164,188
			Bank premises .. ..	13,146	14,477
			Bills receivable and all other assets .. ..	8,680	9,515
<b>Total .. ..</b>	<b>864,248</b>	<b>912,047</b>	<b>Total .. ..</b>	<b>864,248</b>	<b>912,047</b>

(a) Includes branches in London, the Territories of Papua, New Guinea, and Norfolk Island, and the British Solomon Islands.

(iii) *Profits.* Under the terms of the Savings Bank Amalgamation Agreements relative to the absorption of the State savings banks by the Commonwealth Bank, the profits of the Commonwealth Savings Bank in New South Wales, Queensland, Western Australia and Tasmania are equally divided between the Bank and the former controlling authorities in those States. Net profits for the years ended 30th June, 1958 to 1962, and the distribution of those profits, are shown in the following table.

**COMMONWEALTH SAVINGS BANK: DISTRIBUTION OF PROFITS  
(£)**

Year	Total profit	Payments to State authorities under Savings Bank Amalgamation Agreements	Net profit	Distribution of net profit	
				Commonwealth of Australia	Savings Bank Reserve Fund
1957-58 .. ..	1,415,722	540,796	874,926	437,463	437,463
1958-59 .. ..	1,302,708	486,836	815,872	407,936	407,936
1959-60 .. ..	1,585,127	560,931	1,024,196	512,098	512,098
1960-61 .. ..	1,814,928	642,108	1,172,820	586,410	586,410
1961-62 .. ..	983,996	277,078	706,918	353,459	353,459

11. *State Savings Banks.*—(i) *General.* State savings banks at present operating (with date of establishment shown in parentheses) are: The State Savings Bank of Victoria (1841); The Savings Bank of South Australia (1848); The Rural and Industries Bank of Western Australia (1956).

(ii) *Assets.* The assets of the State savings banks, excluding the Rural and Industries Bank of Western Australia, as at the date of their respective balance sheets, are shown in the following table.

**STATE SAVINGS BANKS: ASSETS AT 30th JUNE, 1961 AND 1962**  
(£'000)

Particulars	1962			1961
	The State Savings Bank of Victoria including Crédit Foncier Dept.	The Savings Bank of South Australia	Total	Total
Cash, cash and fixed deposits with other banks .. .. .	41,464	16,810	58,274	46,745
Government securities .. .. .	103,509	52,428	155,937	155,581
Local and semi-governmental securities .. .. .	107,887	29,893	137,780	125,712
Loans on mortgage .. .. .	94,350	37,858	132,208	123,325
Landed and house property .. .. .	5,400	2,065	7,465	6,675
All other assets .. .. .	5,262	1,255	6,517	7,184
<b>Total .. .. .</b>	<b>357,872</b>	<b>140,309</b>	<b>498,181</b>	<b>(a)465,222</b>

(a) Details were: State Savings Bank of Victoria (including Crédit Foncier Department), £331,402, The Savings Bank of South Australia, £133,820.

(iii) *Profit and Loss Accounts.* Details of the profit and loss accounts of the State savings banks included in the table above are given below for the years 1961 and 1962.

**STATE SAVINGS BANKS: PROFIT AND LOSS ACCOUNTS, YEARS ENDED 30th JUNE, 1961 AND 1962**  
(£'000)

Particulars	1962			1961
	The State Savings Bank of Victoria including Crédit Foncier Department	The Savings Bank of South Australia	Total	Total
<b>Receipts—</b>				
Total—Interest, dividends, rents, and all other .. .. .	17,245	6,150	23,395	20,752
<b>Expenditure—</b>				
Interest on deposits .. .. .	10,526	4,505	15,031	12,833
Expenses of management and all other expenditure .. .. .	6,076	1,425	7,501	6,987
<b>Total .. .. .</b>	<b>16,602</b>	<b>5,930</b>	<b>22,532</b>	<b>19,820</b>
<b>Profit for year .. .. .</b>	<b>643</b>	<b>220</b>	<b>863</b>	<b>932</b>
Balance of profit and loss account brought forward .. .. .	168	170	338	327
<b>Total .. .. .</b>	<b>811</b>	<b>390</b>	<b>1,201</b>	<b>1,259</b>
<b>Distribution of Profits—</b>				
Amount written off bank premises .. .. .	141	(a)	(b) 141	(b) 20
Amount carried to Reserves and Depreciation Funds .. .. .	419	220	639	901
<b>Balance of Profit and Loss Account carried forward .. .. .</b>	<b>251</b>	<b>170</b>	<b>421</b>	<b>338</b>

(a) Not available, included with expenses of management, &c.

(b) Incomplete.



12. **Trustee Savings Banks, Hobart and Launceston.**—(i) *General.* Two Trustee Savings Banks, Hobart and Launceston, operate within Tasmania. These banks commenced business in 1845 and 1835 respectively. Under the *Banking Act* 1959, they are subject to the same conditions as apply to the Commonwealth Savings Bank and the private savings banks.

(ii) *Assets.* The assets of the Trustee Savings Banks as at 31st August, 1961 and 1962 are set out in the following table.

**TRUSTEE SAVINGS BANKS: ASSETS AT 31st AUGUST, 1961 AND 1962**  
(£'000)

Particulars	1962			1961
	The Hobart Savings Bank	Launceston Bank for Savings	Total	Total
Cash, cash and fixed deposits with other banks	1,177	1,538	2,715	2,698
Government securities .. .. .	3,125	3,975	7,100	6,900
Local and semi-governmental securities ..	7,585	4,458	12,043	11,518
Loans on mortgage .. .. .	3,859	4,219	8,078	7,909
Bank premises, furniture and sites .. ..	380	345	725	650
All other assets .. .. .	1,190	429	1,619	1,074
<b>Total .. .. .</b>	<b>17,316</b>	<b>14,964</b>	<b>32,280</b>	<b>(a)30,749</b>

(a) Separate details were: The Hobart Savings Bank, £16,448,000 and the Launceston Bank for Savings, £14,301,000.

(iii) *Profit and Loss Accounts.* Details of the profit and loss accounts of the Trustee Savings Banks for the years ended 31st August, 1961 and 1962, are given below.

**TRUSTEE SAVINGS BANKS: PROFIT AND LOSS ACCOUNTS, YEARS ENDED 31st AUGUST, 1961 AND 1962**  
(£'000)

Particulars	1962			1961
	The Hobart Savings Bank	Launceston Bank for Savings	Total	Total
<b>Receipts—</b>				
Total—Interest, dividends, rents and all other	(a) 788	690	1,478	(b) 1,389
<b>Expenditure—</b>				
Interest on deposits .. .. .	565	484	1,049	937
Expenses of management and all other expenditure .. .. .	194	174	368	339
Total .. .. .	759	658	1,417	1,276
<b>Profit for year .. .. .</b>	<b>(a) 29</b>	<b>32</b>	<b>61</b>	<b>(b) 113</b>
Balance of profit and loss account brought forward .. .. .	54	54	108	108
<b>Total .. .. .</b>	<b>83</b>	<b>86</b>	<b>169</b>	<b>221</b>
<b>Distribution of Profits—</b>				
Amount written off bank premises ..	5	5	10	21
Amount carried to reserves and depreciation fund .. .. .	20	27	47	92
Balance of profit and loss account carried forward .. .. .	58	54	112	108

(a) Excludes £28,000 of profits on realization or redemption of investments or other assets.  
(b) Excludes £7,760 of losses on realization or redemption of investments or other assets for The Hobart Savings Bank.

13. **Private Savings Banks.**—(i) *General.* The Bank of New South Wales Savings Bank Ltd. and the Australia and New Zealand Savings Bank Ltd. commenced business on 19th January, 1956, the C.B.C. Savings Bank Ltd. on 16th July, 1956, the National Bank Savings Bank Ltd. on 29th September, 1961, the E.S. and A. Savings Bank Ltd. and the Bank of Adelaide Savings Bank Ltd. on 31st May, 1962. Each of these Savings Banks is subject to the provisions of the *Banking Act 1959*.

(ii) *Assets.* The assets of the private savings banks at the date of their respective balance-sheets are shown in the following table.

PRIVATE SAVINGS BANKS: ASSETS, 1961 AND 1962  
(£'000)

Bank	Cash at bankers		Government securities		Local and semi-governmental securities	Loans and advances (including accrued interest and other accounts)	Total
	Reserve Bank	Other banks	Treasury bills	Other			
The Australia and New Zealand Savings Bank Ltd.(a)	10,555	3,987	..	41,321	34,671	20,031	110,565
The Bank of Adelaide Savings Bank Ltd.(a) ..	425	163	300	1,055	327	475	2,745
The Bank of New South Wales Savings Bank Ltd.(a)	20,400	4,435	200	87,977	53,525	49,451	215,988
C.B.C. Savings Bank Ltd.(b)	5,858	2,098	200	31,287	11,578	11,033	62,054
E.S. and A. Savings Bank Ltd.(b) ..	1,860	1,414	..	6,994	3,310	2,435	16,013
The National Bank Savings Bank Ltd.(a) ..	1,600	757	..	7,699	4,487	1,031	15,574
Total, 1962 ..	40,698	12,854	700	176,333	107,898	84,456	422,939
1961 ..	31,437	11,948	400	133,714	79,267	70,993	(c) 327,759

(a) At 30th September. (b) At 30th June. (c) Separate details were:—The Australia and New Zealand Savings Bank Ltd., £94,345,000; the Bank of New South Wales Savings Bank Ltd., £180,635,000; C.B.C. Savings Bank Ltd., £52,779,000.

(iii) *Net Profit.* The net profit of the three private savings banks, after allowing for all expenses and providing for reserves and contingencies, etc., for the year ended 30th June, 1962, in respect of the C.B.C. Savings Bank Ltd. and the E.S. and A. Savings Bank Ltd. and the year ended 30th September, 1962, for the other banks, was (1961 figures in parentheses):—The Australia and New Zealand Savings Bank Ltd., £275,493 (£238,963); The Bank of Adelaide Savings Bank Ltd., £2,507; The Bank of New South Wales Savings Bank Ltd., £520,749 (£506,043); C.B.C. Savings Bank Ltd., £200,547 (£172,371); E.S. and A. Savings Bank Ltd., £25,056; The National Bank Savings Bank Ltd., £12,802; total, £1,037,154 (£917,377).

14. **Classification of Depositors' Balances.**—The classification of deposits published by savings banks does not permit a fully detailed analysis with respect to Australia as a whole, but the classification of deposits as at 30th June, 1958 to 1962, of the combined State Savings Banks of Victoria and South Australia, is shown below.

STATE SAVINGS BANKS: CLASSIFICATION OF DEPOSITS  
(Per cent.)

At 30th June—					£500 and under	£501-£1,000	Over £1,000
1958 ..	..	..	..	..	37.64	28.03	34.33
1959 ..	..	..	..	..	36.99	26.05	36.96
1960 ..	..	..	..	..	36.43	24.24	39.33
1961 ..	..	..	..	..	(a)	(b) 59.66	40.34
1962 ..	..	..	..	..	(a)	(b) 57.31	42.69

(a) Not available separately.

(b) £1-£1,000.

15. Rates of Interest on Deposits.—The following table shows the rates of interest allowed by Savings Banks at 30th June, 1958 to 1962.

**SAVINGS BANKS: INTEREST RATES ON DEPOSITS(a)**

(Per cent. per annum)

Size of account	Interest rates at 30th June—				
	1958	1959	1960	1961	1962
<b>Ordinary accounts(b)—</b>					
£1 to £1,000 .. .. .	2½	3	3	3½	3½
£1,001 to £1,500 .. .. .	1½	3	3	3½	3½
£1,501 to £2,000 .. .. .	..	3	3	3½	3½
£2,001 to £2,500 .. .. .	..	..	..	3½	3½
£2,501 to £3,000 .. .. .	..	..	..	..	3½
<b>Friendly and other society accounts—</b>					
£1 to £2,000 .. .. .	2½	3	3	3½	3½
£2,001 to £2,500 .. .. .	1½	1½	1½	3½	3½
£2,501 to £3,000 .. .. .	1½	1½	1½	1½	3½
£3,001 and over .. .. .	1½	1½	1½	1½	2

(a) Predominant rates. Certain State Savings Banks allow a slightly higher rate of interest.  
 (b) No interest is payable on amounts in excess of the maximum amount shown.

**REGISTERED BUILDING AND CO-OPERATIVE SOCIETIES**

**§ 1. Registered Building Societies**

1. Summary.—During 1959–60 and 1960–61, returns were received from 1,571 and 1,698 societies respectively, but the information was not exhaustive, as particulars regarding a number of organizations were not included. In the following table, general information is given relating to the societies in each State for the year 1960–61 and to the combined States for 1959–60.

**REGISTERED BUILDING SOCIETIES: SUMMARY, 1959-60 AND 1960-61**

Particulars	1960-61							1959-60
	N.S.W.	Vic.(a)	Q'land	S. Aust.	W. Aust.	Tas.	Total	Total
<b>Societies making returns—</b>								
Permanent .. .. .	47	29	10	5	8	6	105	96
Terminating .. .. .	1,453	2	85	20	11	23	1,594	1,476
<b>Total .. .. .</b>	<b>1,500</b>	<b>(b) 30</b>	<b>95</b>	<b>25</b>	<b>19</b>	<b>29</b>	<b>(b) 1,698</b>	<b>(b) 1,571</b>
<b>Shareholders .. .. .</b>	<b>143,127</b>	<b>12,645</b>	<b>34,302</b>	<b>24,835</b>	<b>26,816</b>	<b>9,946</b>	<b>251,671</b>	<b>253,845</b>
<b>Borrowers .. .. .</b>	<b>n.a.</b>	<b>16,308</b>	<b>18,124</b>	<b>5,349</b>	<b>7,285</b>	<b>4,019</b>	<b>n.a.</b>	<b>n.a.</b>
<b>Working expenses £'000</b>	<b>1,624</b>	<b>1,247</b>	<b>170</b>	<b>66</b>	<b>92</b>	<b>50</b>	<b>3,249</b>	<b>2,985</b>
<b>Loans granted £'000</b>	<b>23,702</b>	<b>4,637</b>	<b>5,418</b>	<b>1,212</b>	<b>2,863</b>	<b>1,310</b>	<b>39,142</b>	<b>35,362</b>

(a) Year 1960; excludes Co-operative Housing Societies, for details of which see para. 3.  
 (b) One society has both a Permanent and a Terminating Branch.

2. **Liabilities and Assets.**—Particulars of liabilities and assets in 1960–61 of the societies mentioned in the previous paragraph are shown below, with totals for 1959–60.

**REGISTERED BUILDING SOCIETIES: LIABILITIES, 1959-60 AND 1960-61**  
(£'000)

State	1960-61					1959-60
	Investing members' funds	Borrowing members' funds	Deposits	Bank overdrafts and other liabilities	Total liabilities	Total liabilities
New South Wales	24,451	34,466	1,713	112,722	173,352	159,317
Victoria(a) ..	5,258	90	5,335	11,164	21,847	20,486
Queensland ..	10,121	1,034	279	7,215	18,649	15,009
South Australia ..	2,999	..	649	1,744	5,392	4,712
Western Australia	4,398	463	2,212	3,963	11,036	9,134
Tasmania ..	2,029	39	2,161	1,617	5,846	5,255
<b>Total ..</b>	<b>49,256</b>	<b>36,092</b>	<b>12,349</b>	<b>138,425</b>	<b>236,122</b>	<b>213,913</b>

(a) Years 1961 and 1960; excludes Co-operative Housing Societies, for details of which see para. 3.

**REGISTERED BUILDING SOCIETIES: ASSETS, 1959-60 AND 1960-61**  
(£'000)

State	1960-61			1959-60
	Advances on mortgage (a)	Other assets	Total assets	Total assets
New South Wales .. ..	169,356	3,996	173,352	159,317
Victoria(b) .. ..	20,659	1,188	21,847	20,486
Queensland .. ..	17,778	871	18,649	15,009
South Australia .. ..	4,997	395	5,392	4,712
Western Australia .. ..	10,716	320	11,036	9,134
Tasmania .. ..	5,357	489	5,846	5,255
<b>Total .. ..</b>	<b>228,863</b>	<b>7,259</b>	<b>236,122</b>	<b>213,913</b>

(a) Includes advances on mortgages of terminating societies which are on a gross basis. Net advances may be derived by subtracting the liability item Borrowing members' funds. See preceding table. (b) Years 1961 and 1960; excludes Co-operative Housing Societies, for details of which see para. 3.

3. **Co-operative Housing Societies, Victoria.**—In addition to the information shown above, the following details of co-operative housing societies in Victoria have been extracted from the Annual Reports of the Registrar of Co-operative Housing Societies. At 30th June, 1961 (1960 in parentheses), 632 (518) co-operative housing societies were registered in Victoria with 41,389 (36,641) members who had subscribed for 1,781,982 (1,544,714) shares, giving a nominal share capital subscribed of £90,366,608 (£79,914,179). For the twelve months ended 30th April, 1961 (1960), returns were submitted by 540 (507) societies, the total income of those societies being £454,150 (£430,725) and total expenditure, £411,508 (£372,846). The liabilities at 30th April, 1961 (1960), of the societies submitting returns were:—bank or other loans £59,874,502 (£53,156,151), subscriptions £10,106,190 (£8,851,046), surplus interest and management expenses £1,015,477 (£847,099), other liabilities £2,827,878 (£2,320,360), total liabilities £73,824,047 (£65,174,656). Assets at the same date consisted of:—advances £73,263,999 (£64,819,623), other assets £560,048 (£355,033), total assets £73,824,047 (£65,174,656).

## § 2. Co-operative Societies

Co-operative societies are divided into three classes—(i) those engaged in the manufacture and marketing of primary products and trade requirements; (ii) those engaged in retailing general household requirements; and (iii) those engaged in activities covered by both classes (i) and (ii). The first class may be described briefly as Producers' Co-operative Societies and the second as Consumers' Co-operative Societies. The particulars given for New South Wales relate to societies registered under the *Co-operation Act* 1923–1954. A summary of the business of all co-operative societies for the years 1960–61 or 1961 for all States except Western Australia is given in the following tables. Separate particulars for each of the three types of Co-operative Societies are given in the annual bulletin *Finance, Part I.—Public and Private Finance*, and issue No. 52, 1960–61, contains details for 1959–60 or 1960.

### CO-OPERATIVE SOCIETIES

Particulars	N.S.W. 1960–61	Victoria 1960–61	Queensland 1960–61	S. Australia 1961	Tasmania 1960–61
SUMMARY					
Societies .. .. .	314	140	162	70	13
Branches .. .. .	n.a.	n.a.	118	n.a.	16
Members .. .. .	246,549	81,592	129,748	111,031	4,925
	(£'000)	(£'000)	(£'000)	(£'000)	(£'000)
Gross turnover (sales) ..	126,339	36,897	62,882	18,539	2,616
Other income .. ..	711	1,707	1,166	1,346	222
<i>Total Income</i> .. ..	<i>127,050</i>	<i>38,604</i>	<i>64,048</i>	<i>19,885</i>	<i>2,838</i>
Total purchases .. ..	122,982	29,612	48,857	14,825	1,986
Other expenditure .. ..	8,044	12,427	4,316	755	
<i>Total Expenditure</i> ..	<i>122,982</i>	<i>37,656</i>	<i>61,284</i>	<i>19,141</i>	<i>2,741</i>
Rebates and bonuses ..	2,774	293	929	771	12
Dividends on share capital ..	586	300	156	131	29
LIABILITIES (£'000)					
Paid-up capital .. ..	12,332	5,186	7,782	2,355	620
Loan capital .. .. .	..	1,083	5,745	3,420	468
Bank overdrafts .. ..	6,565	3,045	5,904	1,610	333
Accumulated profits ..	9,560	960	1,340	716	49
Reserve funds .. .. .	4,759	7,978	2,095	52	
Sundry creditors .. ..	3,579	10,047	1,552	411	
Other liabilities .. ..	1,057	1,788	2,299	151	
<i>Total</i> .. .. .	<i>42,826</i>	<i>19,669</i>	<i>40,584</i>	<i>14,047</i>	<i>2,084</i>
ASSETS (£'000)					
Land and buildings ..	20,069	10,318	6,881	3,284	501
Machinery, plant and other fixed assets .. ..	12,120	3,130	11,048	1,822	232
Stocks .. .. .	8,400	4,805	4,420	3,706	449
Sundry debtors .. ..	401	13,422	2,138	718	
Cash in hand and on deposit ..	152	997	402	23	
Profit and loss account ..	863	179	137	..	
Other assets .. .. .	3,637	2,558	161		
<i>Total</i> .. .. .	<i>42,826</i>	<i>19,669</i>	<i>40,584</i>	<i>14,047</i>	<i>2,084</i>

## INSURANCE

## § 1. Introductory

1. **Legislation.**—Section 51 of the Commonwealth Constitution confers the necessary powers on the Commonwealth Parliament to legislate with respect to “insurance other than State insurance; also State insurance extending beyond the limits of the State concerned”. Commonwealth legislation includes the *Marine Insurance Act 1909* defining the limits of marine insurance and regulating the terms of contracts, etc., the *Insurance Act 1932–1937* requiring the lodgment of deposits by insurance companies, and the *Life Insurance Act 1945–1961* generally regulating life insurance business in Australia. The *Marine Insurance Act 1909* and the *Insurance Act 1932–1937* have limited application, and, except for life insurance business, which is regulated by the *Life Insurance Act 1945–1961*, insurance business is conducted almost entirely under State laws.

2. **Insurance Act 1932–1937.**—Companies, persons or associations of persons carrying on insurance business in Australia or in any Territory of Australia are required to lodge a deposit with the Commonwealth Treasurer.

Money deposited is invested by the Treasurer in prescribed securities selected by the depositor, and all interest is paid to depositors. Deposits remain as security against liability to policy holders, and are available to satisfy judgments obtained in respect of policies.

Deposits held by States on 1st February, 1932, could, however, remain with the States subject to the conditions embodied in the laws of the States, and depositors to the extent of the value of these deposits were exempt from liability to make deposits under the Commonwealth Act.

The following are not regarded as insurance business under the Act:—

Staff superannuation schemes; schemes of religious organizations solely for insurance of their property; friendly society, union and association schemes involving superannuation or insurance benefits to employees.

This Act does not apply to State insurance within the limits of the State concerned, and, under the *Life Insurance Act 1945–1961*, ceased to apply to life insurance business.

3. **Life Insurance Act 1945–1961.**—The objects of this Act are:—(a) to replace all State legislation on the subject of life insurance, except that relating to the life insurance operations of State insurance offices within the State concerned, and to provide uniform legislation for the whole of Australia; (b) to appoint an Insurance Commissioner to exercise active supervision of the activities of life insurance companies, with a view to securing the greatest possible protection for policy holders; (c) to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency.

The Act was assented to on 16th August, 1945, and came into operation on 20th June, 1946. A summary of the provisions of the Act is given in *Official Year Book No. 37*, pages 595–7.

The provisions of the Act relating to the establishment of a Commonwealth Government Insurance Office were repealed under the *Life Insurance Act No. 94 of 1953*.

4. **Export Payments Insurance Corporation Act 1956.**—Details of the operations of the Export Payments Insurance Corporation set up under this Act may be found in § 5 of Chapter XIII. Oversea Trade (*see p. 544*).

5. **Deposits under Insurance Acts.**—Deposits lodged under the Insurance Acts at 30th June, 1962, totalled £14,097,528, comprising £1,746,080 held by the Commonwealth in respect of life insurance and £12,129,158 held by the Commonwealth and £222,290 held by the State in respect of other forms of insurance. The deposits consisted of Commonwealth government securities £8,820,773, United Kingdom government securities £525,000, fixed deposits £16,120, bank guarantees and undertakings £3,597,000, corporation debentures and stock £387,960, and titles and mortgages £750,675.

## § 2. Life Insurance

1. **General.**—Since 1947, returns lodged under the *Life Insurance Act 1945–1961* have been used to compile life insurance statistics. Except where otherwise indicated, the figures in the succeeding paragraphs refer only to Australian business. Business in the Territories of Papua and New Guinea is, however, included in the Australian figures.

The information shown has been compiled from returns of life insurance business submitted in the financial years which ended during the year stated.

2. **Offices Transacting Business.**—The number of offices which transacted life insurance business in Australia during 1962 was 41, including 12 overseas companies. Of the 29 Australian offices, 6 are purely mutual, including one which transacts general business in respect of which share capital is used, 21 are public companies, and 2 are State Government institutions. Of the total offices, 28 transacted ordinary business only and the remainder both ordinary and industrial business. Where possible, ordinary, industrial and superannuation business have been kept separate in the following tables.

3. **Australian Business—Policies in Existence.**—In the following table, details of policies on the registers in each State and in the Australian Capital Territory are given for the year 1961.

#### LIFE INSURANCE: POLICIES EXISTING IN AUSTRALIA, 1961

State or Territory(a)	Insurance and endowment policies				Annuity policies		
	Number of policies	Sum insured (£'000)	Bonus additions (£'000)	Annual premiums (£'000)	Number of policies	Annuities per annum (£'000)	Annual premiums (£'000)

##### ORDINARY BUSINESS

New South Wales ..	1,183,358	1,079,123	98,951	32,444	1,001	175	2
Victoria ..	947,452	960,591	83,712	27,701	972	166	9
Queensland(b) ..	640,244	548,289	50,245	14,887	238	31	..
South Australia(c) ..	383,148	337,558	28,153	10,062	216	26	..
Western Australia ..	264,213	227,525	20,090	6,931	157	21	1
Tasmania ..	122,587	116,395	9,656	3,222	98	13	..
Australian Capital Territory ..	39,641	103,697	5,038	2,374	72	29	..
<i>Australia(b) ..</i>	<i>3,580,643</i>	<i>3,373,178</i>	<i>295,845</i>	<i>97,621</i>	<i>2,754</i>	<i>461</i>	<i>12</i>

##### INDUSTRIAL BUSINESS

New South Wales ..	1,191,127	135,418	6,158	6,178	..	..	..
Victoria ..	981,034	107,851	5,041	4,886	..	..	..
Queensland(b) ..	394,917	43,262	1,860	1,966	..	..	..
South Australia(c) ..	340,667	34,128	1,538	1,555	..	..	..
Western Australia ..	198,910	22,372	984	1,008	..	..	..
Tasmania ..	76,559	8,108	391	360	..	..	..
Australian Capital Territory ..	15,608	2,256	105	103	..	..	..
<i>Australia(b) ..</i>	<i>3,198,822</i>	<i>353,395</i>	<i>16,077</i>	<i>16,056</i>	<i>..</i>	<i>..</i>	<i>..</i>

##### SUPERANNUATION BUSINESS

New South Wales ..	281,518	193,530	12,213	6,832	385	1,711	477
Victoria ..	152,866	389,373	13,120	9,178	749	7,746	2,172
Queensland(b) ..	55,204	56,924	3,569	2,174	25	49	11
South Australia(c) ..	44,782	55,829	3,827	2,157	67	64	15
Western Australia ..	36,123	34,293	1,875	1,142	27	40	8
Tasmania ..	17,102	27,549	2,002	908	35	17	4
Australian Capital Territory ..	33,253	241,036	4,733	3,193	294	1,455	364
<i>Australia(b) ..</i>	<i>620,848</i>	<i>998,534</i>	<i>41,339</i>	<i>25,584</i>	<i>1,582</i>	<i>11,082</i>	<i>3,051</i>

(a) Location of register of policies.

(c) Includes Northern Territory.

(b) Includes Territories of Papua and New Guinea.

The following table shows particulars of policies existing at the end of the years 1957 to 1961 inclusive.

### LIFE INSURANCE: POLICIES EXISTING IN AUSTRALIA

At end of year—	Insurance and endowment policies				Annuity policies	
	Number of policies	Sum insured (£'000)	Average sum insured per policy (£)	Annual premiums (£'000)	Number of policies	Annuities per annum (£'000)

#### ORDINARY BUSINESS

1957(a) .. ..	3,445,644	2,533,396	735	82,332	13,308	8,565
1958(a) .. ..	3,576,943	2,873,388	803	90,752	12,016	9,486
1959(a) .. ..	3,710,479	3,285,710	886	99,997	5,673	9,762
1960(a) .. ..	4,110,289	3,845,171	935	112,280	4,354	10,528
1961 .. ..	3,580,643	3,373,178	942	97,621	2,754	461

#### INDUSTRIAL BUSINESS

1957 .. ..	3,615,271	322,516	89	15,334	..	..
1958 .. ..	3,530,826	328,626	92	15,493	..	..
1959 .. ..	3,443,168	332,539	97	15,532	..	..
1960 .. ..	3,340,003	342,964	103	15,826	..	..
1961 .. ..	3,198,822	353,395	110	16,056	..	..

#### SUPERANNUATION BUSINESS

1961 .. ..	620,848	998,534	1,608	25,584	1,582	11,082
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(a) Includes particulars of superannuation business, available separately commencing 1961 (see below).

4. New Policies issued in Australia.—In the following table, details are given of new policies issued in each State and the Australian Capital Territory during 1961 for each class of business.

### LIFE INSURANCE: NEW POLICIES ISSUED IN AUSTRALIA, 1961

State or Territory(a)	Insurance and endowment policies				Annuity policies			
	Number of policies	Sum insured (£'000)	Premiums		Number of policies	Annuities per annum (£'000)	Premiums	
			Single (£'000)	Annual (£'000)			Single (£'000)	Annual (£'000)

#### ORDINARY BUSINESS

New South Wales ..	112,728	188,379	110	4,771	42	12	83	..
Victoria .. ..	95,616	175,001	132	4,124	123	30	188	3
Queensland(b) ..	54,647	86,959	36	2,062	12	2	10	..
South Australia(c) ..	40,309	62,427	37	1,585	12	2	16	..
Western Australia ..	29,680	41,027	29	1,023	4	1	5	..
Tasmania .. ..	13,814	22,063	8	520	2	..	1	..
Australian Capital Territory ..	7,877	27,604	9	573	6	6	36	..
<b>Australia(b) ..</b>	<b>354,671</b>	<b>603,460</b>	<b>361</b>	<b>14,658</b>	<b>201</b>	<b>53</b>	<b>339</b>	<b>3</b>

NOTE.—See next page for footnotes.



LIFE INSURANCE: NEW POLICIES ISSUED IN AUSTRALIA, 1961—*continued*

State or Territory(a)	Insurance and endowment policies				Annuity policies			
	Number of policies	Sum insured	Premiums		Number of policies	Annuities per annum	Premiums	
			Single	Annual			Single	Annual
			(£'000)	(£'000)			(£'000)	(£'000)
INDUSTRIAL BUSINESS								
New South Wales ..	73,059	18,193	..	790	..	..	..	..
Victoria ..	48,295	13,340	..	556	..	..	..	..
Queensland(b) ..	21,175	5,088	..	226	..	..	..	..
South Australia(c) ..	17,503	3,703	..	166	..	..	..	..
Western Australia ..	11,205	2,492	..	111	..	..	..	..
Tasmania ..	3,654	953	..	41	..	..	..	..
Australian Capital Territory ..	1,498	337	..	16	..	..	..	..
Australia(b) ..	176,389	44,106	..	1,906	..	..	..	..
SUPERANNUATION BUSINESS								
New South Wales ..	29,216	34,417	74	1,076	9	212	51	61
Victoria ..	23,076	101,780	2,552	2,234	15	1,360	770	298
Queensland(b) ..	9,330	13,296	21	476	..	4	2	1
South Australia(c) ..	4,548	8,358	7	299	1	16	11	4
Western Australia ..	5,281	7,782	56	210	..	3	1	..
Tasmania ..	2,409	4,629	1	131	..	6	..	3
Australian Capital Territory ..	5,643	55,630	146	709	27	368	30	124
Australia(b) ..	79,503	225,892	2,857	5,135	52	1,969	865	491

(a) Location of register of policies.  
(c) Includes Northern Territory.

(b) Includes Territories of Papua and New Guinea.

New policies issued in Australia during each of the years 1957 to 1961 were as shown in the following table.

## LIFE INSURANCE: NEW POLICIES ISSUED IN AUSTRALIA

Year	Insurance and endowment policies				Annuity policies				
	Number of policies	Sum insured (£'000)	Premiums		Number of policies	Annuities per annum (£'000)	Premiums		
			Single (£'000)	Annual (£'000)			Single (£'000)	Annual (£'000)	
ORDINARY BUSINESS									
1957(a)	..	317,735	445,470	649	13,521	1,512	1,250	869	288
1958(a)	..	322,269	499,694	760	14,044	925	1,464	355	409
1959(a)	..	341,332	598,239	728	15,507	547	1,383	493	422
1960(a)	..	454,018	802,261	903	19,311	(h) -218	2,247	608	660
1961	..	354,671	603,460	361	14,658	201	53	339	3
INDUSTRIAL BUSINESS									
1957	..	209,733	33,459	..	1,580	..	..	..	..
1958	..	200,954	33,071	..	1,553	..	..	..	..
1959	..	192,524	32,796	..	1,543	..	..	..	..
1960	..	187,150	39,394	..	1,777	..	..	..	..
1961	..	176,389	44,106	..	1,906	..	..	..	..
SUPERANNUATION BUSINESS									
1961	..	79,503	225,892	2,857	5,135	52	1,969	865	491

(a) Includes particulars of superannuation business, available separately commencing 1961.  
(b) Net decrease due to cancellation of individual policies and issue of blanket policies.

5. Policies Discontinued or Reduced in Australia.—In the following table, details are given of ordinary, industrial and superannuation life insurance policies discontinued or reduced in each State and the Australian Capital Territory during the year 1961.

**LIFE INSURANCE: POLICIES DISCONTINUED OR REDUCED  
IN AUSTRALIA, 1961(a)**

State or Territory(b)	Insurance and endowment policies			Annuity policies		
	Number of policies	Sum insured (£'000)	Annual premiums (£'000)	Number of policies	Annuities per annum (£'000)	Annual premiums (£'000)

**ORDINARY BUSINESS**

New South Wales .. ..	80,724	90,079	2,646	124	20	..
Victoria .. ..	70,284	68,232	1,936	233	21	1
Queensland(c) .. ..	35,178	31,510	915	27	2	..
South Australia(d) .. ..	24,575	23,535	712	37	3	..
Western Australia .. ..	15,726	14,706	453	21	2	..
Tasmania .. ..	9,295	9,580	287	33	2	..
Australian Capital Territory .. ..	— 1,084	2,547	10	5	3	..
<i>Australia(c) .. ..</i>	<i>234,698</i>	<i>240,189</i>	<i>6,959</i>	<i>480</i>	<i>53</i>	<i>1</i>

**INDUSTRIAL BUSINESS.**

New South Wales .. ..	120,306	13,227	658	..	..	..
Victoria .. ..	99,506	9,994	501	..	..	..
Queensland(c) .. ..	34,833	3,843	190	..	..	..
South Australia(d) .. ..	33,901	3,197	162	..	..	..
Western Australia .. ..	20,075	2,281	110	..	..	..
Tasmania .. ..	8,282	1,008	49	..	..	..
Australian Capital Territory .. ..	667	125	6	..	..	..
<i>Australia(c) .. ..</i>	<i>317,570</i>	<i>33,675</i>	<i>1,676</i>	<i>..</i>	<i>..</i>	<i>..</i>

**SUPERANNUATION BUSINESS**

New South Wales .. ..	27,936	18,726	676	— 46	116	68
Victoria .. ..	58,176	47,236	1,228	— 112	593	124
Queensland(c) .. ..	9,351	1,730	64	— 19	..	1
South Australia(d) .. ..	2,986	2,662	93	— 18	5	2
Western Australia .. ..	8,897	2,155	91	— 11	1	..
Tasmania .. ..	2,039	2,032	43	— 21	29	10
Australian Capital Territory .. ..	— 1,111	— 11,919	— 286	18	209	62
<i>Australia(c) .. ..</i>	<i>108,274</i>	<i>62,622</i>	<i>1,909</i>	<i>— 209</i>	<i>953</i>	<i>267</i>

(a) Includes matured, surrendered, forfeited, transfers to other state registers, conversions to other classes of business, etc. (b) Location of register of policies. (c) Includes Territories of Papua and New Guinea. (d) Includes Northern Territory.

NOTE.—Minus sign (—) denotes an increase in existing business in the registers concerned due to an excess of transfers from other States or of conversions from other classes of business over discontinuances in those registers.

Policies discontinued or reduced in Australia during each of the years 1957 to 1961 are shown in the following table.

**LIFE INSURANCE: POLICIES DISCONTINUED OR REDUCED  
IN AUSTRALIA(a)**

Year	Insurance and endowment policies			Annuity policies		
	Number of policies	Sum insured (£'000)	Annual premiums (£'000)	Number of policies	Annuities per annum (£'000)	Annual premiums (£'000)

### ORDINARY BUSINESS

1957(b)	..	..	..	191,520	135,344	4,852	5,498	857	(c)-308
1958(b)	..	..	..	190,970	159,702	5,627	2,217	543	197
1959(b)	..	..	..	207,796	185,917	6,260	6,890	1,106	330
1960(b)	..	..	..	287,031	242,800	7,028	1,267	1,481	486
1961	..	..	..	234,698	240,189	6,959	480	53	1

## INDUSTRIAL BUSINESS

1957	..	..	..	296,002	26,383	1,378	..	..
1958	..	..	..	285,399	26,960	1,393	..	..
1959	..	..	..	280,182	28,886	1,504	..	..
1960	..	..	..	290,315	28,969	1,482	..	..
1961	..	..	..	317,570	33,675	1,676	..	..

## SUPERANNUATION BUSINESS

1961	..	..	..	108,274	62,622	1,909	(d) - 209	953	267
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(a) See note (a) to preceding table. (b) Includes particulars of superannuation business available separately commencing 1961. (c) The negative amount shown is due to an adjustment to the annual premiums on certain annuities which in previous years were treated as single premiums. (d) Negative amount denotes excess of conversions from other classes of businesses over discontinuances.

The number of policies and sums insured, excluding annuities, discontinued during the years 1957 to 1961 and the causes for discontinuance are given in the following table.

**LIFE INSURANCE POLICIES(a) DISCONTINUED OR REDUCED IN AUSTRALIA:**  
**CAUSE OF DISCONTINUANCE OR REDUCTION(b)**

Year	Death or maturity	Surrender	Forfeiture	Other	Total
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### Ordinary Business

## NUMBER OF POLICIES

1957(c)	..	..	..	55,923	77,937	42,981	14,679	191,520
1958(c)	..	..	..	58,914	85,211	42,805	4,040	190,970
1959(c)	..	..	..	62,251	92,030	45,413	8,102	207,796
1960(c)	..	..	..	70,539	122,201	58,767	35,524	287,031
1961	..	..	..	64,123	83,834	67,806	18,935	234,698

**SUM INSURED (£'000)**

1957(c)	..	..	..	19,475	60,231	41,868	13,770	135,344
1958(c)	..	..	..	21,689	69,721	49,444	18,848	159,702
1959(c)	..	..	..	23,018	77,059	60,150	25,690	185,917
1960(c)	..	..	..	25,989	99,166	77,789	39,856	242,800
1961	..	..	..	23,284	69,393	102,553	44,959	240,189

NOTE.—See next page for footnotes.

LIFE INSURANCE POLICIES(a) DISCONTINUED OR REDUCED IN AUSTRALIA—  
CAUSE OF DISCONTINUANCE OR REDUCTION(b)—*continued*

Year	Death or maturity	Surrender	Forfeiture	Other	Total
<b>Industrial Business</b>					
<b>NUMBER OF POLICIES</b>					
1957 .. .. .	174,327	66,940	54,612	123	296,002
1958 .. .. .	159,145	69,878	56,168	208	285,399
1959 .. .. .	155,108	74,069	50,865	140	280,182
1960 .. .. .	172,026	71,178	47,041	70	290,315
1961 .. .. .	192,833	77,143	47,547	47	317,570
<b>SUM INSURED (£'000)</b>					
1957 .. .. .	8,439	8,722	9,186	36	26,383
1958 .. .. .	8,006	9,416	9,478	60	26,960
1959 .. .. .	8,200	10,600	10,023	63	28,886
1960 .. .. .	8,996	10,561	9,363	49	28,969
1961 .. .. .	10,593	12,031	11,040	11	33,675

<b>Superannuation Business</b>					
<b>NUMBER OF POLICIES</b>					
1961 .. .. .	9,419	68,415	587	29,853	108,274
<b>SUM INSURED (£'000)</b>					
1961 .. .. .	5,822	68,058	2,814	-14,072	62,622

(a) Excludes annuities. (b) See note (a) on p. 879. (c) Includes particulars of superannuation business available separately commencing 1961.

NOTE.—Minus sign (—) denotes an increase in existing business due to an excess of transfers from oversea registers to Australian registers, or of conversions from other classes of business over discontinuances.

6. Premiums and Claims, Australia.—(i) *Premiums.* (a) *Ordinary Business.* Details of revenue from premiums in respect of the ordinary business of all offices doing business in Australia are shown in the following tables for each State and the Australian Capital Territory for the year 1961.

ORDINARY LIFE INSURANCE(a): AUSTRALIAN REVENUE FROM PREMIUMS,  
1961  
(£'000)

State or Territory(b)	Insurance and endowment premiums		Consideration for annuities		Total
	Single premiums	Other premiums	Single premiums	Other premiums	
New South Wales .. ..	215	39,555	146	508	40,424
Victoria .. .. .	4,877	37,064	781	2,071	44,793
Queensland(c) .. .. .	52	16,716	11	13	16,792
South Australia(d) .. ..	44	12,009	26	14	12,093
Western Australia .. ..	74	7,996	6	17	8,093
Tasmania .. .. .	10	4,051	1	14	4,076
Australian Capital Territory ..	153	6,368	29	927	7,477
Australia(c) .. .. .	5,425	123,759	1,000	3,564	133,748

(a) Includes superannuation business. (b) Location of register of policies. (c) Includes Territories of Papua and New Guinea. (d) Includes Northern Territory.

(b) *Industrial Business.* Details of revenue from premiums in respect of the industrial business of all offices doing business in Australia are shown in the following table for each State and the Australian Capital Territory for the year 1961.

**INDUSTRIAL LIFE INSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS,  
1961  
(£'000)**

State or Territory(a)	Insurance and endowment premiums		Total
	Single premiums	Other premiums	
New South Wales .. ..	7	6,009	6,016
Victoria .. ..	3	4,791	4,794
Queensland(b) .. ..	..	1,911	1,911
South Australia(c) .. ..	..	1,529	1,529
Western Australia .. ..	1	984	985
Tasmania .. ..	..	355	355
Australian Capital Territory .. ..	..	93	93
<b>Australia(b) .. ..</b>	<b>11</b>	<b>15,672</b>	<b>15,683</b>

(a) Location of register of policies.  
(c) Includes Northern Territory.

(b) Includes Territories of Papua and New Guinea.

(c) *Ordinary and Industrial Business.* The following table shows, for each of the years 1957 to 1961, the aggregate Australian income from premiums in respect of both ordinary and industrial business of all offices doing business in Australia.

**LIFE INSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS  
(£'000)**

Year	Ordinary business			Industrial business	Ordinary and industrial business combined
	Insurance and endowment premiums	Consideration for annuities	Total		
1957 .. ..	83,256	3,009	86,265	15,041	101,306
1958 .. ..	92,126	3,377	95,503	15,184	110,687
1959 .. ..	101,749	3,593	105,342	15,264	120,606
1960 .. ..	113,504	4,133	117,637	15,448	133,085
1961 .. ..	129,184	4,564	133,748	15,683	149,431

(ii) *Claims, etc., Paid.* Details of the claims, etc., paid on policies in each State and the Australian Capital Territory during the year 1961 are shown in the following table.

**LIFE INSURANCE: PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA, 1961  
(£'000)**

State or Territory(a)	Claims		Surrenders	Annuities	Cash bonuses	Total
	Death or disability	Maturity				
ORDINARY BUSINESS(b)						
New South Wales .. ..	6,127	6,215	7,351	212	67	19,972
Victoria .. ..	5,815	5,670	7,970	330	427	20,212
Queensland(c) .. ..	2,475	2,405	1,928	34	29	6,871
South Australia(d) .. ..	1,494	1,728	1,379	27	20	4,648
Western Australia .. ..	983	1,032	950	23	20	3,008
Tasmania .. ..	599	443	624	16	5	1,687
Australian Capital Territory ..	1,006	454	815	56	21	2,352
Australia(c) .. ..	18,499	17,947	21,017	698	589	58,750

For footnotes see next page.

**LIFE INSURANCE: PAYMENTS TO POLICY-HOLDERS  
IN AUSTRALIA, 1961—continued**  
(£'000)

State or Territory(a)	Claims		Surrenders	Annuities	Cash bonuses	Total
	Death or disability	Maturity				
INDUSTRIAL BUSINESS						
New South Wales .. ..	377	3,973	900	..	..	5,250
Victoria .. ..	302	3,816	683	..	..	4,801
Queensland(c) .. ..	116	1,127	296	..	..	1,539
South Australia(d) .. ..	98	1,132	221	..	..	1,451
Western Australia .. ..	53	606	162	..	..	821
Tasmania .. ..	16	253	71	..	..	340
Australian Capital Territory ..	3	27	12	..	..	42
Australia(c) .. ..	965	10,934	2,345	..	..	14,244

(a) Location of register of policies.  
Territories of Papua and New Guinea.

(b) Includes superannuation business.  
(d) Includes Northern Territory.

(c) Includes

In the following table details are given of claims, etc., paid on policies in Australia for each of the years 1957 to 1961.

**LIFE INSURANCE: PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA**  
(£'000)

Year	Claims	Surrenders	Annuities	Cash bonuses	Total
<b>ORDINARY BUSINESS(a)</b>					
1957 .. ..	24,187	8,825	493	135	33,640
1958 .. ..	26,328	10,295	524	183	37,330
1959 .. ..	28,527	11,495	578	370	40,970
1960 .. ..	32,516	24,092	638	280	57,526
1961 .. ..	36,446	21,017	698	589	58,750
<b>INDUSTRIAL BUSINESS</b>					
1957 .. ..	9,361	1,498	..	..	10,859
1958 .. ..	8,806	1,664	..	..	10,470
1959 .. ..	9,050	1,848	..	..	10,898
1960 .. ..	10,022	1,964	..	..	11,986
1961 .. ..	11,899	2,345	..	..	14,244

(a) Includes superannuation business.

7. Total Revenue and Expenditure.—(i) *Total Revenue.* The following table shows particulars of the total life insurance revenue derived by life insurance offices from sources within and beyond Australia during each of the years 1957 to 1961.

**ORDINARY AND INDUSTRIAL LIFE INSURANCE: TOTAL REVENUE**  
(£'000)

Year	Insurance and endowment premiums	Con-sideration for annuities granted	Net interest, dividends and rents	All other revenue	Total revenue			
					Inside Australia	Outside Australia		
ORDINARY BUSINESS(a)								
1957	..	..	109,353	4,081	35,417	353	149,204	
1958	..	..	121,802	4,693	41,429	530	168,454	
1959	..	..	138,168	5,591	49,678	2,433	195,870	
1960	..	..	152,798	6,406	56,313	5,836	161,948	59,405
1961	..	..	171,790	8,452	64,562	18,916	197,625	66,095
INDUSTRIAL BUSINESS								
1957	..	..	17,210	..	5,592	29	22,831	
1958	..	..	17,336	..	6,072	12	23,420	
1959	..	..	17,746	..	6,787	406	24,939	
1960	..	..	17,897	..	7,190	446	21,984	3,549
1961	..	..	18,104	..	7,648	320	22,491	3,581

(a) Includes superannuation business.

(ii) *Total Expenditure.* The next table supplies details of the total expenditure, both within and beyond Australia, of life insurance offices during each of the years 1957 to 1961.

**ORDINARY AND INDUSTRIAL LIFE INSURANCE: TOTAL EXPENDITURE**  
(£'000)

Year	Claims and annuities paid	Surrenders	Cash bonuses paid to policy-holders	Commission	Transfers to profit and loss account including shareholders' dividends	All other expenditure	Total expenditure		
							Inside Australia	Outside Australia	
ORDINARY BUSINESS(a)									
1957	..	35,944	11,463	238	9,160	223	12,741	69,769	
1958	..	39,693	13,708	306	9,900	212	14,251	78,070	
1959	..	44,827	16,209	559	11,045	196	17,239	90,075	
1960	..	50,378	28,875	489	13,128	226	21,740	83,348	31,488
1961	..	56,316	26,474	821	14,169	257	24,921	88,390	34,568
INDUSTRIAL BUSINESS									
1957	..	11,218	1,648	..	2,538	78	3,436	18,918	
1958	..	10,556	1,830	..	2,549	61	3,670	18,666	
1959	..	10,932	2,066	..	2,495	40	3,833	19,366	
1960	..	12,150	2,194	..	2,579	42	4,090	17,834	3,221
1961	..	14,461	2,593	..	2,685	48	4,105	20,136	3,756

(a) Includes superannuation business.

8. **Liabilities and Assets.**—(i) *General.* The liabilities of the Australian offices consist mainly of their insurance funds, but in the case of public companies there is a further liability on account of the shareholders' capital. The assets consist chiefly of government and municipal securities, mortgages, loans on policies, landed and house property, etc. Loans on personal security are granted by very few of the Australian offices. Separate details of liabilities in respect of Australian business are not available.

(ii) *Total Liabilities and Assets.* In the two tables which follow, the details of liabilities and assets relate to all business (Australian and overseas) of Australian companies, the life insurance business of the two State Government offices, all business of the Provident Life Assurance Co. Ltd. (incorporated in New Zealand), and the Australian business only of the other eleven overseas companies operating in Australia. For various reasons, several offices do not attempt the dissection of liabilities and assets between industrial and ordinary business, and, therefore, the figures in the following tables relate to ordinary and industrial business combined. Details of the total liabilities of life insurance offices for the year 1961 are given in the following table.

**ORDINARY AND INDUSTRIAL LIFE INSURANCE: TOTAL LIABILITIES, 1961**  
(£'000)

Particulars	Life insurance business	Other classes of business	Total liabilities
<b>Shareholders' Capital—</b>			
Authorized .. .. .	..	21,050	21,050
Less unissued .. .. .	..	13,998	13,998
Subscribed Capital .. .. .	..	7,052	7,052
<b>Paid-up—</b>			
In money .. .. .	..	5,663	5,663
Otherwise than in money .. .. .	..	65	65
Total .. .. .	..	5,728	5,728
<b>Life Insurance Statutory Funds—</b>			
Ordinary business .. .. .	1,343,656	..	1,343,656
Industrial business .. .. .	153,345	..	153,345
Total .. .. .	1,497,001	..	1,497,001
Funds in respect of other classes of business .. .. .	..	2,437	2,437
General reserves .. .. .	20,334	3,251	23,585
Profit and loss account balance .. .. .	..	424	424
Total, Shareholders' Capital, Insurance Funds and Reserves .. .. .	1,517,335	11,840	1,529,175
<b>Other Liabilities—</b>			
Deposits .. .. .	8,220	6,200	14,420
Staff provident and superannuation funds .. .. .	821	367	1,188
Claims admitted or intimated but not paid .. .. .	15,212	1,138	16,350
Annuities due but not paid .. .. .	3	..	3
Premiums paid in advance and in suspense .. .. .	1,064	30	1,094
Sundry creditors .. .. .	5,573	398	5,971
Bank overdraft .. .. .	8,419	82	8,501
Reserves and provisions for taxation .. .. .	12,369	656	13,025
All other liabilities .. .. .	1,168	758	1,926
<b>Grand Total .. .. .</b>	<b>1,570,184</b>	<b>21,469</b>	<b>1,591,653</b>

The following table furnishes details of the total assets of life insurance offices for the year 1961.



**ORDINARY AND INDUSTRIAL LIFE INSURANCE: TOTAL ASSETS, 1961**  
(£'000)

Particulars	Life insurance business	Other classes of business	Total	Amount of assets held in Australia		
				Life insurance business	Other classes of business	Total
<b>Fixed Assets—</b>						
Freehold and leasehold property, office premises .. ..	97,841	909	98,750	71,449	909	72,358
Furniture, etc. .. ..	1,780	130	1,910	1,333	124	1,457
<i>Total</i> .. ..	<i>99,621</i>	<i>1,039</i>	<i>100,660</i>	<i>72,782</i>	<i>1,033</i>	<i>73,815</i>
<b>Loans—</b>						
On mortgage .. ..	530,661	828	531,489	374,127	828	374,955
On policies of the company .. ..	58,684	..	58,684	44,959	..	44,959
Other loans .. ..	25,972	750	26,722	25,424	737	26,161
<i>Total</i> .. ..	<i>615,317</i>	<i>1,578</i>	<i>616,895</i>	<i>444,510</i>	<i>1,565</i>	<i>446,075</i>
<b>Investments—</b>						
Government securities—						
Australia .. ..	263,862	2,943	266,805	244,446	2,943	247,389
Other .. ..	79,026	581	79,607	2	..	2
Securities of local and semi-governmental bodies .. ..	189,753	2,718	192,471	138,622	2,543	141,165
Other investments .. ..	277,011	9,973	286,984	224,481	9,910	234,391
<i>Total</i> .. ..	<i>809,652</i>	<i>16,215</i>	<i>825,867</i>	<i>607,551</i>	<i>15,396</i>	<i>622,947</i>
Cash on deposit, current account and in hand .. ..	2,700	1,098	3,798	2,341	1,025	3,366
Other assets(a) .. ..	42,894	1,539	44,433	32,145	1,504	33,649
<b>Grand Total</b> .. ..	<b>1,570,184</b>	<b>21,469</b>	<b>1,591,653</b>	<b>1,159,329</b>	<b>20,523</b>	<b>1,179,852</b>

(a) Includes advances of premiums.

(iii) *Assets held in Australia.* Details of assets held in Australia for the years 1957 to 1961 are set out in the following table.

**ORDINARY AND INDUSTRIAL LIFE INSURANCE(a): ASSETS HELD IN AUSTRALIA**  
(£'000)

Particulars	1957	1958	1959	1960	1961
Landed and house property ..	39,276	43,670	51,566	58,833	72,358
Government and municipal securities .. ..	338,520	350,671	359,173	356,736	388,556
Other investments .. ..	92,561	117,824	148,848	200,958	234,391
Loans on mortgage .. ..	261,011	294,625	319,442	353,060	374,955
Loans on companies' policies .. ..	32,880	37,402	42,078	37,639	44,959
Other loans .. ..	29,412	23,522	34,233	26,698	26,161
All other assets .. ..	15,089	16,689	19,914	33,929	38,472
<b>Total</b> .. ..	<b>808,749</b>	<b>884,403</b>	<b>975,254</b>	<b>1,067,853</b>	<b>1,179,852</b>

(a) Life insurance and other classes of business.

9. **Loans.**—In the following table, details are given of new loans paid over by life insurance companies during each of the years ended 31st December, 1958 to 1962. The information has been compiled from monthly returns furnished by each company. New loans paid over by the Government Insurance Office of New South Wales and the Queensland State Government Insurance Office are not included. Advances of premiums are also excluded.

**LIFE INSURANCE COMPANIES: NEW LOANS PAID OVER**  
(£'000)

Particulars	1958	1959	1960	1961	1962
<b>CLASS OF SECURITY</b>					
Mortgage of real estate ..	53,953	58,900	67,680	51,111	47,446
Companies' policies ..	7,470	7,925	10,080	12,796	10,722
Other .. ..	5,399	6,777	6,583	4,745	4,004
<b>Total</b> .. ..	<b>66,822</b>	<b>73,602</b>	<b>84,343</b>	<b>68,652</b>	<b>62,172</b>
<b>STATE OR TERRITORY(a)</b>					
New South Wales .. ..	30,096	33,674	35,962	28,790	30,045
Victoria .. ..	17,699	20,516	25,564	22,059	15,965
Queensland(b) .. ..	6,653	7,305	7,786	5,826	5,560
South Australia(c) .. ..	6,047	5,630	7,049	5,231	4,805
Western Australia .. ..	3,556	3,570	4,456	3,862	2,859
Tasmania .. ..	2,576	2,767	3,221	2,472	1,839
Australian Capital Territory	195	140	305	412	1,099
<b>Total</b> .. ..	<b>66,822</b>	<b>73,602</b>	<b>84,343</b>	<b>68,652</b>	<b>62,172</b>

(a) State or Territory of location of mortgage, registration of policy, or residence of borrower.

(b) Includes Territories of Papua and New Guinea.

(c) Includes the Northern Territory.

### § 3. Fire, Marine and General Insurance

1. **General.**—The following statistics, which are in respect of the Australian business of companies operating in Australia and State government insurance offices, conform to the following definitions and should be interpreted in accordance therewith.

(a) Premiums represent the full amount receivable in respect of policies issued and renewed in the year, less returns, rebates and bonuses paid or credited to policy-holders during the year. They are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts differ from "earned premium income" appropriate to the year. When business is increasing, as in recent years, premiums receivable (as shown in the statistics) are greater than "earned premium income" appropriate to the year. The converse applies when business is declining.

(b) Claims or losses include provision for outstanding claims and represent claims or losses incurred in the year. Salvage and other amounts recoverable have been deducted.

(c) Contributions to fire brigades, commission and agents' charges, and expenses of management represent mainly charges paid during the year.

(d) Taxation represents mainly payments made during the year, and includes income tax, pay-roll tax, licence fees, stamp duty (where paid by the company), etc. Income tax paid during the year is based on the income of earlier years.

The figures relate to selected items of statistics and are not construable as "Profit and Loss" statements or "Revenue Accounts".

In cases where the business is underwritten in one State and the risk is situated in another, the business is included in the State in which the policy was issued.

During 1961-62, revenue from premiums amounted to £209,216,000, and that from net interest on investments, etc., to £12,315,000, a total of £221,531,000. Expenditure on claims amounted to £130,820,000, contributions to fire brigades, £5,566,000, commission and agents' charges £19,078,000, expenses of management £36,145,000, and taxation £6,814,000, a total of £198,423,000.

2. **States.**—The following table shows, for each State, the aggregate premium income less returns, rebates and bonuses, and claims or losses less amounts recoverable, for all classes of insurance other than life for the years 1957-58 to 1961-62.

**FIRE, MARINE AND GENERAL INSURANCE: PREMIUMS AND CLAIMS—STATES**  
(£'000)

State	1957-58	1958-59	1959-60	1960-61	1961-62
<b>GROSS PREMIUMS, LESS RETURNS, REBATES AND BONUSES</b>					
New South Wales(a) ..	59,875	65,371	71,419	79,773	84,131
Victoria .. ..	50,764	53,961	58,119	62,424	64,851
Queensland .. ..	19,106	19,291	22,154	24,017	25,945
South Australia ..	12,209	12,990	13,836	15,979	16,671
Western Australia ..	8,532	9,340	10,785	11,791	12,512
Tasmania .. ..	3,989	4,292	4,567	4,923	5,106
<i>Total</i> .. ..	<i>154,475</i>	<i>165,245</i>	<i>180,880</i>	<i>198,907</i>	<i>209,216</i>

<b>GROSS CLAIMS OR LOSSES, LESS AMOUNTS RECOVERABLE</b>					
New South Wales(a) ..	35,390	39,753	44,688	56,513	57,450
Victoria .. ..	28,603	30,854	33,417	38,680	39,095
Queensland .. ..	11,110	12,381	13,702	15,778	16,050
South Australia .. ..	5,898	6,639	7,127	8,342	8,413
Western Australia ..	4,618	5,489	6,327	7,283	7,065
Tasmania .. ..	2,017	2,113	2,701	2,760	2,747
<i>Total</i> .. ..	<i>87,636</i>	<i>97,229</i>	<i>107,962</i>	<i>129,356</i>	<i>130,820</i>

(a) Excludes workers' compensation insurance in coal-mining industry in New South Wales.

3. **Classes of Insurance.**—The following statement shows premiums and claims in respect of the principal classes of risks for the years 1957-58 to 1961-62.

**FIRE, MARINE AND GENERAL INSURANCE: PREMIUMS AND CLAIMS—  
PRINCIPAL CLASSES OF RISK, AUSTRALIA**  
(£'000)

Class of risk	1957-58	1958-59	1959-60	1960-61	1961-62
<b>GROSS PREMIUMS, LESS RETURNS, REBATES AND BONUSES</b>					
Fire .. ..	29,854	30,642	31,813	33,842	35,536
Workers' compensation(a) ..	33,772	34,805	38,876	43,825	43,629
Motor vehicle—					
Compulsory third party ..	16,064	17,166	19,831	23,094	25,901
Other .. ..	42,127	43,827	48,939	52,662	56,480
Marine .. ..	7,292	7,646	8,033	8,839	8,579
Personal accident .. ..	4,733	5,563	6,151	6,875	7,170
All other .. ..	20,633	25,596	27,237	29,770	31,921
<i>Total</i> .. ..	<i>154,475</i>	<i>165,245</i>	<i>180,880</i>	<i>198,907</i>	<i>209,216</i>

<b>GROSS CLAIMS OR LOSSES, LESS AMOUNTS RECOVERABLE</b>					
Fire .. ..	9,406	9,370	10,104	12,007	12,465
Workers' compensation(a) ..	24,473	27,391	29,154	31,871	33,926
Motor vehicle—					
Compulsory third party ..	14,105	17,342	18,848	22,764	24,991
Other .. ..	27,459	28,405	32,416	38,875	37,761
Marine .. ..	3,258	2,999	3,311	4,204	4,099
Personal accident .. ..	2,120	2,427	2,831	3,390	3,562
All other .. ..	6,815	9,295	11,298	16,245	14,016
<i>Total</i> .. ..	<i>87,636</i>	<i>97,229</i>	<i>107,962</i>	<i>129,356</i>	<i>130,820</i>

(a) Excludes workers' compensation insurance in coal-mining industry in New South Wales.

**INSTALMENT CREDIT FOR RETAIL SALES BY RETAIL BUSINESSES AND NON-RETAIL FINANCE BUSINESSES**

1. **General.**—Information relating to instalment credit for retail sales in Australia is given in the following tables. Information in more detail may be found in the annual bulletin *Finance, Part I.—Public and Private Finance* and in the monthly and quarterly statements relating to instalment credit for retail sales issued by this Bureau (*see NOTE* at beginning of this chapter).

The statistics cover operations of all types of instalment credit schemes which relate primarily to the financing of retail sales of goods, whether the credit is advanced by a retail business or by a non-retail finance business. In general, the term "instalment credit" is defined as relating to schemes in which repayment is made by regular pre-determined instalments. Types of schemes covered include hire purchase, time payment, budget account, and personal loan schemes which relate primarily to the financing of retail sales of goods. In these statistics, the term "retail sales" relates not only to retail sales by retail establishments coming within the scope of the Censuses of Retail Establishments conducted periodically by this Bureau, but includes also other sales of goods to final purchasers (e.g. plant and machinery).

2. **New Retail Agreements.**—Details of amount financed on new retail agreements in the years 1956–57 and 1958–59 to 1961–62 are given in the following tables.

**INSTALMENT CREDIT FOR RETAIL SALES: AMOUNT FINANCED(a) ON NEW AGREEMENTS BY RETAIL BUSINESSES AND NON-RETAIL FINANCE BUSINESSES**

(£'000)

Year	N.S.W.(b)	Vic.	Q'land	S. Aust.(c)	W. Aust.	Tas.	Aust.
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**HIRE PURCHASE**

1956–57 ..	79,696	65,853	35,969	24,527	14,834	8,309	229,188
1958–59(d) ..	124,287	90,562	43,647	28,812	20,811	8,447	316,566
1959–60 ..	134,053	105,604	52,573	38,998	26,941	9,375	367,544
1960–61 ..	119,352	86,599	43,909	31,821	24,508	9,324	315,513
1961–62 ..	109,755	73,919	39,465	21,863	24,552	9,354	278,908

**OTHER INSTALMENT CREDIT**

1956–57 ..	19,375	8,070	4,120	1,711	2,326	1,098	36,700
1958–59(d) ..	28,892	16,582	6,297	3,194	4,355	1,461	60,781
1959–60 ..	36,080	20,996	8,604	6,508	6,318	2,672	81,178
1960–61 ..	40,821	25,134	9,037	8,829	7,690	2,817	94,328
1961–62 ..	46,417	25,011	11,553	10,637	7,491	2,698	103,807

**TOTAL INSTALMENT CREDIT**

1956–57 ..	99,071	73,923	40,089	26,238	17,160	9,407	265,888
1958–59(d) ..	153,179	107,144	49,944	32,006	25,166	9,908	377,347
1959–60 ..	170,133	126,600	61,177	45,506	33,259	12,047	448,722
1960–61 ..	160,173	111,733	52,946	40,650	32,198	12,141	409,841
1961–62 ..	156,172	98,930	51,018	32,500	32,043	12,052	382,715

(a) Excludes hiring charges, interest and insurance. (b) Includes Australian Capital Territory  
(c) Includes Northern Territory. (d) 1957–58 not available.

3. **New Retail Agreements, Classified by Commodity Groups.**—The details shown for 1961–62 in the preceding table are classified by commodity groups below.

**INSTALMENT CREDIT FOR RETAIL SALES: AMOUNT FINANCED(a) ON NEW AGREEMENTS BY RETAIL BUSINESSES AND NON-RETAIL FINANCE BUSINESSES: COMMODITY GROUPS, 1961-62**  
(£'000)

Commodity group	N.S.W. (b)	Vic.	Q'land	S. Aust. (c)	W. Aust.	Tas.	Aust.
<b>HIRE PURCHASE</b>							
Motor vehicles, tractors, etc.(d) .. ..	71,523	42,122	22,367	14,781	15,255	6,458	172,506
Plant and machinery(e) .. ..	8,650	5,185	2,618	1,661	2,641	644	21,399
Household and personal goods(f) .. ..	29,582	26,612	14,480	5,421	6,656	2,252	85,003
<b>Total .. ..</b>	<b>109,755</b>	<b>73,919</b>	<b>39,465</b>	<b>21,863</b>	<b>24,552</b>	<b>9,354</b>	<b>278,908</b>
<b>OTHER INSTALMENT CREDIT</b>							
Motor vehicles, tractors, etc.(d) .. ..	882	5,309	1,454	1,291	1,194	50	10,180
Plant and machinery(e) .. ..	281	121	35	15	50	59	561
Household and personal goods(f) .. ..	45,254	19,581	10,064	9,331	6,247	2,589	93,066
<b>Total .. ..</b>	<b>46,417</b>	<b>25,011</b>	<b>11,553</b>	<b>10,637</b>	<b>7,491</b>	<b>2,698</b>	<b>103,807</b>
<b>TOTAL INSTALMENT CREDIT</b>							
Motor vehicles, tractors, etc.(d) .. ..	72,405	47,431	23,821	16,072	16,449	6,508	182,686
Plant and machinery(e) .. ..	8,931	5,306	2,653	1,676	2,691	703	21,960
Household and personal goods(f) .. ..	74,836	46,193	24,544	14,752	12,903	4,841	178,069
<b>Total .. ..</b>	<b>156,172</b>	<b>98,930</b>	<b>51,018</b>	<b>32,500</b>	<b>32,043</b>	<b>12,052</b>	<b>382,715</b>

(a) Excludes hiring charges, interest and insurance. (b) Includes Australian Capital Territory.  
 (c) Includes Northern Territory. (d) Includes new and used motor cars, motor cycles, commercial vehicles, tractors, caravans, trailers, motor parts and accessories, etc. (e) Includes farm machinery and implements, earth-moving equipment, aircraft, industrial plant and machinery, business machines and equipment (including commercial refrigeration equipment), etc. (f) Includes furniture, furnishings and floor coverings, domestic refrigerators, electrical goods, radios, television, musical instruments, bicycles, motor mowers, clothing, etc.

The following are some additional particulars relating to new hire purchase agreements made during 1961-62.

**NEW HIRE PURCHASE AGREEMENTS, COMMODITY GROUPS: AVERAGE VALUE AND AMOUNT AND PROPORTION FINANCED, AUSTRALIA, 1961-62**

Commodity group	Average value of goods purchased per agreement	Average amount financed per agreement	Average proportion financed
	£	£	Per cent.
Motor vehicles, tractors, etc. .. ..	747	477	64
Plant and machinery .. ..	757	492	65
Household and personal goods .. ..	85	70	82
<b>All groups .. ..</b>	<b>251</b>	<b>172</b>	<b>69</b>

4. **Balances Outstanding on Retail Agreements.**—Details of the balances outstanding on retail agreements at 30th June, 1957 and 1959 to 1962, are given below.

# **INSTALMENT CREDIT FOR RETAIL SALES: BALANCES OUTSTANDING ON AGREEMENTS MADE BY RETAIL BUSINESSES AND NON-RETAIL FINANCE BUSINESSES**

(Including hiring charges, interest and insurance)  
(£'000)

30th June—	N.S.W.(a)	Vic.	Q'land	S. Aust.(b)	W. Aust.	Tas.	Aust.
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## **HIRE PURCHASE**

1957 .. ..	105,661	77,261	42,528	29,030	18,141	9,689	282,310
1959(c) .. ..	173,396	119,923	55,677	37,147	26,639	11,122	423,904
1960 .. ..	199,466	143,226	67,598	50,930	34,792	12,315	508,327
1961 .. ..	200,303	136,900	68,145	51,436	38,157	13,367	508,308
1962 .. ..	190,985	123,430	64,483	43,153	38,329	13,815	474,195

## **OTHER INSTALMENT CREDIT**

1957 .. ..	12,383	4,712	3,069	742	1,005	696	22,607
1959(c) .. ..	22,666	12,513	4,736	2,684	3,017	1,525	47,141
1960 .. ..	29,262	18,631	7,630	5,849	4,232	2,707	68,311
1961 .. ..	36,872	25,746	8,850	9,749	5,982	3,712	90,911
1962 .. ..	44,196	29,055	11,132	12,398	8,213	4,074	109,068

## **TOTAL INSTALMENT CREDIT**

1957 .. ..	118,044	81,973	45,597	29,772	19,146	10,385	304,917
1959(c) .. ..	196,062	132,436	60,413	39,831	29,656	12,647	471,045
1960 .. ..	228,728	161,857	75,228	56,779	39,024	15,022	576,638
1961 .. ..	237,175	162,646	76,995	61,185	44,139	17,079	599,219
1962 .. ..	235,181	152,485	75,615	55,551	46,542	17,889	583,263

(a) Includes Australian Capital Territory.  
at 30th June, 1958, are not available.

(b) Includes Northern Territory.

(c) Balances

5. *Non-retail Finance Businesses.*—The preceding tables include all instalment credit for retail sales, whether advanced by retail businesses and their subsidiaries or by non-retail finance businesses. In the following table, particulars for non-retail finance businesses, including statistics of collections by such businesses, are shown for the years 1957–58 to 1961–62. The figures include hire purchase and other instalment credit agreements.

# **INSTALMENT CREDIT FOR RETAIL SALES, FINANCED BY NON-RETAIL FINANCE BUSINESSES** (£'000)

Year	N.S.W.(a)	Vic.	Q'land	S. Aust.(b)	W. Aust.	Tas.	Aust.
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## **AMOUNT FINANCED DURING YEAR(c)**

1957–58 .. ..	86,334	61,002	34,299	19,903	14,669	7,579	223,786
1958–59 .. ..	102,783	65,468	38,854	21,629	14,980	8,086	251,800
1959–60 .. ..	112,726	80,024	47,208	29,525	19,696	9,346	298,525
1960–61 .. ..	101,574	66,219	37,720	25,283	17,617	8,922	257,335
1961–62 .. ..	95,039	57,687	32,978	18,637	19,077	8,894	232,312

## **COLLECTIONS DURING YEAR(d)(e)**

1959–60 .. ..	123,600	83,209	50,220	28,696	19,478	10,944	316,147
1960–61 .. ..	133,740	90,027	52,149	31,239	20,570	11,526	339,251
1961–62 .. ..	125,216	85,012	48,461	29,129	22,455	11,570	321,843

## **BALANCES OUTSTANDING AT END OF YEAR(d)**

1957–58 .. ..	108,191	77,590	42,459	25,393	17,230	9,676	280,539
1958–59 .. ..	137,277	90,000	49,694	28,768	19,760	10,845	336,344
1959–60 .. ..	158,647	108,147	61,080	38,728	24,372	12,389	403,363
1960–61 .. ..	159,365	102,490	58,196	39,022	25,618	13,195	397,886
1961–62 .. ..	153,593	92,911	52,647	33,896	27,239	13,427	373,713

(a) Includes Australian Capital Territory.  
hiring charges, interest and insurance.  
(e) Not available for years prior to 1959–60.

(b) Includes Northern Territory.

(c) Excludes

(d) Includes hiring charges, interest and insurance.

# **NEW CAPITAL RAISINGS BY COMPANIES IN AUSTRALIA**

1. *General.*—Information relating to capital raised by companies in Australia is given in the following tables. More detailed information may be found in the annual bulletin *Finance, Part I.—Public and Private Finance* and in quarterly bulletins dealing with capital raisings (see NOTE at beginning of this chapter).

The statistics (the collection of which commenced in July, 1954) relate to capital raised by companies through issues of shares, and in the case of companies listed on stock exchanges, through the issue of debentures, notes and similar securities and the acceptance of deposits, and in the case of unlisted companies, by way of loans secured over the entire assets of the company. Capital obtained by way of bank overdraft, trade credit, temporary advances, and loans secured over part only of the assets of the company is not included, and, in the case of unlisted companies, capital raised through loans not secured over any of the assets of the company is excluded.

Separate statistics are given for listed and unlisted companies. Listed companies are companies incorporated in Australia or the Australian territories and listed on one or more of the Australian stock exchanges. All other companies incorporated in Australia, including subsidiaries of listed companies, are classified as unlisted companies. Companies incorporated overseas, whether listed on an Australian stock exchange or not, are excluded from the statistics of share issues. However, subsidiaries of overseas companies, if incorporated in Australia, are included. The statistics of new capital raised through issues of debentures, notes, etc., and the acceptance of deposits, include, in addition to capital raised by Australian companies, capital raised in this way from Australian sources by overseas public companies through their Australian offices.

The following are explanatory notes relating to some of the items shown in the tables.

**New Money.** This is the net amount of cash transferred from the investing public to the companies. For this purpose, the "investing public" includes banks and life insurance companies (except when subscribing to issues by associated companies), and government and private superannuation funds, but excludes other government agencies. Subscriptions by associated companies, whether local or overseas, are excluded. In the tables which follow, the amount of new money is obtained by deducting from the total cash raised the "amount not involving a net transfer of funds from the investing public".

**Amounts not involving new money.** These amounts include cash subscriptions received by issuing companies from associated companies. Such subscriptions represent inter-company transfers only, and do not involve a receipt of funds from the "investing public". Also included are amounts which, although subscribed by the "investing public" (i.e. subscribers other than "associated companies"), are not retained by the issuing company or its associates, but are used to redeem shares, debentures or unsecured notes, etc., or are used to purchase from individuals existing shares, debentures, etc., in other companies, including existing shares, etc., in associated and subsidiary companies. The funds used in this way are thus returned to another section of the "investing public", and do not represent a net transfer of cash from the "investing public" to the companies. (Besides these purchases of existing shares, etc., from individuals, purchases of existing shares, etc., from companies other than associates of the issuing company might also be included in this item, but the amounts involved are small and separate details have not been collected.)

2. Companies Listed on Stock Exchanges.—Details of new capital raised through issues of shares, debentures, or registered notes, or through accepting deposits, are given in the following table for each of the years 1957–58 to 1961–62.

**LISTED AUSTRALIAN COMPANIES(a): NEW CAPITAL RAISED THROUGH ISSUES OF SHARES, DEBENTURES, OR REGISTERED NOTES, ETC.(b), OR ACCEPTING DEPOSITS(c)**

(£ million)

Year	Share capital						Debentures, registered notes and deposits		
	Value of issues commenced	Non-cash issues commenced (d)	Cash issues commenced	Cash raised during period (e)	Amounts not involving new money	New money	Total amount raised (f)	Amounts not involving new money (f)	New money
1957–58 ..	105.1	56.2	48.9	50.3	15.1	35.2	212.3	130.6	81.7
1958–59 ..	99.6	41.1	58.5	57.7	9.0	48.7	310.9	168.7	142.2
1959–60 ..	158.6	96.6	62.0	62.2	14.3	47.9	414.3	213.9	200.4
1960–61 ..	263.6	127.3	136.3	127.2	28.7	98.5	435.3	314.9	120.4
1961–62 ..	191.6	72.9	118.7	95.0	18.7	76.3	379.9	280.0	99.9

(a) Includes companies incorporated in the Australian Territories.

(b) Includes convertible notes.

(c) Deposits accepted by banks, life insurance companies, pastoral companies, building societies and loans to authorized dealers in the short-term money market are not included.

(d) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc.

(e) Amounts paid up on issues commenced during the year plus calls on issues commenced in earlier years.

(f) Includes conversions, renewals, etc.

3. Companies not listed on Stock Exchanges.—Details of new capital raised by unlisted companies through issues of shares and loans secured by charges over the companies' entire assets are given in the following table for each of the years 1957–58 to 1961–62.

**UNLISTED COMPANIES(a): NEW CAPITAL RAISED THROUGH ISSUES OF SHARES AND LOANS SECURED BY CHARGES OVER THE COMPANIES' ENTIRE ASSETS**

(£ million)

Year	Share capital						Loans secured by charges over the companies' entire assets		
	Value of issues commenced	Non-cash issues commenced (b)	Cash issues commenced	Cash raised during period (c)	Amounts not involving new money	New money	Total amount raised (d)	Amounts not involving new money (d)	New money
1957-58 ..	151.2	81.2	70.0	64.8	43.7	21.1	8.7	4.4	4.3
1958-59 ..	175.1	94.6	80.5	70.0	51.9	18.1	18.8	6.3	12.5
1959-60 ..	224.7	107.6	117.1	104.9	69.4	35.5	29.2	17.6	11.6
1960-61 ..	319.6	203.1	116.5	113.4	81.2	32.2	24.6	15.3	9.3
1961-62 ..	251.5	135.0	116.5	107.3	79.9	27.4	24.0	17.1	6.9

(a) Excludes companies incorporated in the Northern Territory and Australian External Territories.  
 (b) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (c) Amounts paid up on issues commenced during year plus calls on issues commenced in previous years.  
 (d) Includes conversions, renewals, etc.

4. Listed and Unlisted Companies, New Money Raised, Classified by Industry Group.—A summary of new money raised by listed and unlisted companies during each of the years 1957-58 to 1961-62, as shown in the preceding tables, is given below, together with a classification by industry groups of the amounts raised.

**LISTED AND UNLISTED COMPANIES: NEW MONEY RAISED, INDUSTRY GROUPS**  
 (£ million)

(2 million)

Year	Companies listed on stock exchanges			Companies not listed on stock exchanges			Grand total
	Share capital (a)	Debentures, registered notes and deposits (b)	Total	Share capital (a)	Secured loans (c)	Total	
MANUFACTURING							
1957-58 .. ..	14.7	12.9	27.6	5.2	2.8	8.0	35.6
1958-59 .. ..	20.7	27.7	48.4	4.6	8.8	13.4	61.8
1959-60 .. ..	17.9	24.5	42.4	(d)	(d)	13.2	55.6
1960-61 .. ..	37.9	24.9	62.8	5.8	3.4	9.2	72.0
1961-62 .. ..	42.1	29.6	71.7	5.5	1.5	7.0	78.7
FINANCE AND PROPERTY(b)							
1957-58 .. ..	3.9	48.0	51.9	5.4	0.5	5.9	57.8
1958-59 .. ..	10.5	91.5	102.0	4.0	1.7	5.7	107.7
1959-60 .. ..	9.5	140.2	149.7	10.3	2.6	12.9	162.6
1960-61 .. ..	20.2	61.4	81.6	9.8	3.7	13.5	95.1
1961-62 .. ..	6.0	45.4	51.4	8.1	2.7	10.8	62.2
COMMERCE							
1957-58 .. ..	10.6	15.9	26.5	4.9	0.6	5.5	32.0
1958-59 .. ..	11.9	16.6	28.5	3.9	1.6	5.5	34.0
1959-60 .. ..	9.6	24.4	34.0	7.2	0.8	8.0	42.0
1960-61 .. ..	21.6	22.6	44.2	5.9	1.0	6.9	51.1
1961-62 .. ..	13.7	13.5	27.2	5.1	0.7	5.8	33.0
OTHER INDUSTRIES							
1957-58 .. ..	6.0	4.9	10.9	4.5	0.4	4.9	15.8
1958-59 .. ..	5.6	6.4	12.0	4.1	0.4	4.5	16.5
1959-60 .. ..	10.9	11.3	22.2	(d)	(d)	11.3	33.5
1960-61 .. ..	18.8	11.5	30.3	9.0	1.2	10.2	40.5
1961-62 .. ..	14.5	11.4	25.9	7.2	2.0	9.2	35.1
TOTAL ALL INDUSTRIES							
1957-58 .. ..	35.2	81.7	116.9	(e)	4.3	25.4	142.3
1958-59 .. ..	48.7	142.2	190.9	18.1	12.5	30.6	221.5
1959-60 .. ..	47.9	200.4	248.3	35.5	11.6	47.1	293.4
1960-61 .. ..	98.5	120.4	218.9	32.2	9.3	41.5	260.4
1961-62 .. ..	76.3	99.9	176.2	27.4	6.9	34.3	210.5

(a) Includes preference shares. (b) Excludes deposits accepted by banks, insurance companies, pastoral companies and building societies, and loans to authorized dealers in the short-term money market.  
 (c) Includes only loans which are secured by charges over the companies' entire assets. (d) Not available for publication. (e) Small share issues of less than £1,000 for which returns have not been collected have not been included in the industrial classification but are included in Total, All Industries.



## OVERSEA INVESTMENT BY PRIVATE INVESTORS

1. *General.*—A survey of Oversea Investment has been conducted since 1947–48 to obtain particulars of certain types of private capital flows to and from Australia. The survey, when supplemented by other information, provides statistics of overseas investment in companies in Australia and in Australian public authority securities domiciled in Australia, and statistics of Australian investment in companies overseas and in foreign government securities. Particulars of investment income from most of those classes of investment are also obtained from the survey.

Certain types of private overseas investment are not included in the statistics which follow. Investment in real estate (except when made through companies), investment by means of bank deposits and advances, and loans between Australian individuals and non-resident individuals are not covered. Nor are changes in short-term liabilities between exporters and importers in Australia and overseas covered, except in so far as they arise from exports and imports between branches or subsidiaries and their home offices—in this case, they are included in the figures of investment in branches or subsidiaries.

In some cases, the capital invested in a company in Australia may be received from a company in one overseas country even though the ultimate ownership and control of that capital may rest with a parent company in a second overseas country. In the tables which classify investment in Australia according to country of origin, the investment is shown as an inflow from the country which is the immediate source of the capital rather than from the country in which the parent company with ultimate ownership and control is domiciled. Income payable overseas is classified on a similar basis, i.e., it is classified to the country to which it is directly payable.

Remittances between Australia and overseas by Australian life insurance companies are regarded as capital transactions made to bring assets located in overseas countries into line with commitments in those countries, and are shown as a flow of investment between Australia and overseas in the table in para. 4 below. Similar considerations apply to overseas life insurance companies with branches in Australia.

The following are some explanatory notes relating to terms used in the tables.

*Overseas.* For the purpose of these statistics, “overseas” includes Papua and New Guinea.

*Companies.* In these statistics, the term “companies” relates to both incorporated and unincorporated businesses.

*Subsidiary.* For the purpose of these statistics, this term is applied to all companies in which there is a “direct” holding, irrespective of the degree of control, if any, which is actually exercised. A holding is treated as “direct” when there is ownership of 25 per cent. or more of a company’s ordinary shares (or voting stock) by one company or a number of companies incorporated in one country, or ownership of 50 per cent. or more of a company’s ordinary shares (or voting stock) by individuals or companies in one country.

*Portfolio Investment.* Investment in company shares, debentures, etc., other than direct investment in such securities of a subsidiary company.

*Unremitted profits.* For these statistics, this represents the net earnings of branches during the year after tax, less remittances during the year by the branches to their home offices of net earnings and interest (irrespective of the period to which the earnings and interest relate). “Net earnings” of Australian branches of overseas companies is, in general based on the value of their income for taxation purposes.

*Undistributed profits.* This term refers, in the case of Australian “subsidiaries”, to the equity of the overseas parent in the net earnings of the Australian company, less tax (or tax provision) and less dividends declared. “Net earnings” of Australian subsidiaries of overseas companies is, in general, based on the value of their income for taxation purposes. In the case of overseas subsidiaries of Australian companies, this term represents the equity of the Australian parent in the book value of the net earnings of the subsidiary after tax, less dividends paid or payable.

*Finance Bulletin, Part I.—Public and Private Finance* and the *Annual Bulletin of Oversea Investment: Australia* contain additional figures relating to overseas investment, including a longer range of years covered, and also more detailed description of the figures.

2. Private Oversea Investment in Companies in Australia and Investment Income Payable Overseas by Companies in Australia.—The inflow of private overseas investment in companies in Australia since 1956-57, and a classification by country of origin, are shown in the following two tables.

**ANNUAL INFLOW OF PRIVATE OVERSEA INVESTMENT IN COMPANIES IN AUSTRALIA, BY TYPE OF COMPANY IN WHICH CAPITAL INVESTED(a)**  
(£A. million)

Year	Direct investment					Portfolio investment (b)	Annual inflow of overseas investment in companies
	Australian branches		Australian subsidiaries		Total direct investment		
	Unremitted profits	Other investment	Undistributed profits	Other investment			
1956-57 ..	9.4	7.7	38.3	40.6	96.0	8.9	104.9
1957-58 ..	4.6	5.8	38.8	47.4	96.6	7.9	104.5
1958-59 ..	11.6	9.5	51.7	32.8	105.6	19.7	125.3
1959-60 ..	9.5	21.7	59.2	69.3	159.7	33.6	193.3
1960-61 ..	2.8	24.7	54.8	105.4	187.7	48.4	236.1

(a) Increases in investment by some overseas investors are offset against withdrawals of investment by other overseas investors. (b) Partly estimated.

**ANNUAL INFLOW OF PRIVATE OVERSEA INVESTMENT IN COMPANIES IN AUSTRALIA, BY DOMICILE OF INVESTOR AND CATEGORY OF INVESTMENT(a)**  
(£A. million)

Year	United Kingdom	New Zealand	U.S.A. and Canada	Other	Annual inflow of overseas investment in companies
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**UNDISTRIBUTED INCOME(b)**

1956-57.. ..	24.1	0.9	20.6	2.1	47.7
1957-58.. ..	19.8	1.0	20.6	2.0	43.4
1958-59.. ..	28.3	0.9	31.5	2.6	63.3
1959-60.. ..	31.1	0.2	34.8	2.6	68.7
1960-61.. ..	20.4	1.3	30.7	5.2	57.6

**OTHER INVESTMENT**

1956-57.. ..	37.5	3.1	7.0	9.6	57.2
1957-58.. ..	42.3	3.8	6.5	8.5	61.1
1958-59.. ..	38.3	-1.4	14.9	10.2	62.0
1959-60.. ..	74.3	7.7	28.0	14.6	124.6
1960-61.. ..	93.3	1.6	56.7	26.9	178.5

**TOTAL ANNUAL INFLOW**

1956-57.. ..	61.6	4.0	27.6	11.7	104.9
1957-58.. ..	62.1	4.8	27.1	10.5	104.5
1958-59.. ..	66.6	-0.5	46.4	12.8	125.3
1959-60.. ..	105.4	7.9	62.8	17.2	193.3
1960-61.. ..	113.7	2.9	87.4	32.1	236.1

(a) See footnote (a) to preceding table. (b) Unremitted profits of Australian branches plus undistributed profits of Australian subsidiaries.

NOTE.—Minus sign (—) denotes outflow.

The next two tables show investment income payable overseas by companies in Australia, and the countries to which it is payable.

**INVESTMENT INCOME<sup>(a)</sup> PAYABLE OVERSEAS BY COMPANIES IN AUSTRALIA,  
BY TYPE OF COMPANIES**  
(£A. million)

Year	Income payable on direct investment					Income payable on portfolio investment (b)	Total
	Australian branches		Australian subsidiaries		Total income payable on direct investment		
	Unremitted profits (net)	Remitted profits	Undistributed profits (net)	Dividends declared			
1956-57 ..	9.4	15.8	38.3	19.0	82.5	6.9	89.4
1957-58 ..	4.6	19.1	38.8	25.2	87.7	6.9	94.6
1958-59 ..	11.6	14.8	51.7	27.7	105.8	9.5	115.3
1959-60 ..	9.5	17.7	59.2	27.2	113.6	9.3	122.9
1960-61 ..	2.8	21.3	54.8	28.5	107.4	10.2	117.6

(a) Excludes interest payable overseas. The amount payable by Australian companies (excluding branches of overseas companies) was £0.8 m. in 1956-57, £0.8 m. in 1957-58, £1.0 m. in 1958-59, £1.8 m. in 1959-60, and £2.8 m. in 1960-61.

(b) Because of certain differences in scope these figures differ from those in the category "Other" in item 12, Table 2, in *The Australian Balance of Payments, 1958-59 to 1962-63* and in the table on pages 570-1 of this Year Book.

**INVESTMENT INCOME PAYABLE<sup>(a)</sup> OVERSEAS BY COMPANIES IN AUSTRALIA,  
BY COUNTRY TO WHICH PAYABLE AND CATEGORY OF INCOME**  
(£A. million)

Year	United Kingdom	New Zealand	U.S.A. and Canada	Other	Total
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**UNDISTRIBUTED INCOME<sup>(b)</sup>**

1956-57 ..	24.1	0.9	20.6	2.1	47.7
1957-58 ..	19.8	1.0	20.6	2.0	43.4
1958-59 ..	28.3	0.9	31.5	2.6	63.3
1959-60 ..	31.1	0.2	34.8	2.6	68.7
1960-61 ..	20.4	1.3	30.7	5.2	57.6

**OTHER INCOME<sup>(c)</sup>**

1956-57 ..	25.4	2.4	12.3	1.6	41.7
1957-58 ..	29.0	2.9	17.4	1.9	51.2
1958-59 ..	28.3	4.8	16.5	2.4	52.0
1959-60 ..	31.2	3.8	17.0	2.2	54.2
1960-61 ..	35.1	3.5	19.0	2.4	60.0

**TOTAL INCOME PAYABLE OVERSEAS**

1956-57 ..	49.5	3.3	32.9	3.7	89.4
1957-58 ..	48.8	3.9	38.0	3.9	94.6
1958-59 ..	56.6	5.7	48.0	5.0	115.3
1959-60 ..	62.3	4.0	51.8	4.8	122.9
1960-61 ..	55.5	4.8	49.7	7.6	117.6

(a) See footnote (a) to preceding table.  
undistributed profits of Australian subsidiaries.

(b) Unremitted profits of Australian branches plus  
(c) See footnote (b) to preceding table.

A classification by broad industry group of the inflow of direct investment and the income payable overseas on direct investment in 1960-61 is shown in the following table.

**INFLOW OF DIRECT PRIVATE OVERSEA INVESTMENT IN COMPANIES IN AUSTRALIA AND INCOME FROM DIRECT INVESTMENT PAYABLE OVERSEAS BY COMPANIES IN AUSTRALIA BY INDUSTRY IN WHICH CAPITAL INVESTED, 1960-61**

(£A. million)

Category of investment or income	Primary production and mining	Manufacturing	Other industries	Total
Inflow of Direct Investment—				
Undistributed income(a) .. ..	0.7	44.3	12.6	57.6
Other direct investment .. ..	5.0	80.1	45.0	130.1
<i>Total Inflow of Direct Investment ..</i>	<i>5.7</i>	<i>124.4</i>	<i>57.6</i>	<i>187.7</i>
Income from Direct Investment Payable Overseas—				
Undistributed income(a) .. ..	0.7	44.3	12.6	57.6
Other income from direct investment ..	6.0	28.4	15.4	49.8
<i>Total Income from Direct Investment</i>	<i>6.7</i>	<i>72.7</i>	<i>28.0</i>	<i>107.4</i>

(a) See footnote (b) to preceding table.

3. Australian Investment in Companies Overseas and Investment Income receivable from Companies Overseas.—The outflow of Australian investment in companies since 1956-57, and a classification by country in which the capital was invested, are shown in the following two tables.

**ANNUAL OUTFLOW OF AUSTRALIAN INVESTMENT IN COMPANIES OVERSEAS, BY TYPE OF COMPANY IN WHICH CAPITAL INVESTED(a)**

(£A. million)

Year	Direct investment					Portfolio investment	Annual outflow of Australian investment in companies overseas
	Overseas branches		Overseas subsidiaries		Total direct investment		
	Unremitted profits	Other	Undistributed profits	Other			
1956-57 ..	0.7	6.7	2.7	1.3	11.4	-0.9	10.5
1957-58 ..	0.7	2.0	3.6	1.6	7.9	-1.4	6.5
1958-59 ..	1.1	5.0	1.4	4.7	12.2	-1.4	10.8
1959-60 ..	-0.1	0.9	3.2	3.8	7.8	-4.4	3.4
1960-61 ..	0.9	2.8	2.6	2.5	8.8	-4.4	4.4

(a) Increases in investment by some Australian investors are offset against withdrawals of investment by other Australian investors.

NOTE.—Minus sign (—) denotes inflow.

**ANNUAL OUTFLOW OF AUSTRALIAN INVESTMENT IN COMPANIES OVERSEAS,  
BY COUNTRY IN WHICH CAPITAL INVESTED AND CATEGORY OF  
INVESTMENT(a)**

(£A. million)

Year	United Kingdom	New Zealand	U.S.A. and Canada	Other	Annual outflow of Australian investment in companies overseas
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**UNDISTRIBUTED INCOME(b)**

1956-57..	..	0.3	1.1	-0.1	2.1	3.4
1957-58..	..	0.2	1.6	-0.1	2.6	4.3
1958-59..	..	0.2	2.3	..	..	2.5
1959-60..	..	0.1	2.0	-0.1	1.1	3.1
1960-61..	..	0.9	1.7	..	0.9	3.5

**OTHER INVESTMENT**

1956-57..	..	0.1	1.6	0.1	5.3	7.1
1957-58..	..	0.1	-0.2	0.1	2.2	2.2
1958-59..	..	1.1	3.5	-0.4	4.1	8.3
1959-60..	..	-2.9	2.3	-0.4	1.3	0.3
1960-61..	..	-1.3	1.1	0.6	0.5	0.9

**TOTAL INVESTMENT**

1956-57..	..	0.4	2.7	..	7.4	10.5
1957-58..	..	0.3	1.4	..	4.8	6.5
1958-59..	..	1.3	5.8	-0.4	4.1	10.8
1959-60..	..	-2.8	4.3	-0.5	2.4	3.4
1960-61..	..	-0.4	2.8	0.6	1.4	4.4

(a) See footnote (a) to preceding table.  
undistributed profits of Australian subsidiaries.

(b) Unremitted profits of Australian branches plus

NOTE.—Minus sign (—) denotes inflow.

The next two tables show income from direct investments payable to Australia by companies overseas, and countries from which it is receivable.

**INCOME FROM DIRECT INVESTMENTS PAYABLE TO AUSTRALIA BY  
COMPANIES OVERSEAS, BY TYPE OF COMPANY**

(£A. million)

Year		Oversea branches		Oversea subsidiaries		Total income from direct investments
		Unremitted profits	Remitted profits	Undistributed profits	Dividends declared	
1956-57..	..	0.7	1.7	2.7	3.3	8.4
1957-58..	..	0.7	2.4	3.6	1.8	8.5
1958-59..	..	1.1	2.1	1.4	4.6	9.2
1959-60..	..	-0.1	2.4	3.2	2.9	8.4
1960-61..	..	0.9	2.4	2.6	3.7	9.6

**INCOME FROM DIRECT INVESTMENTS PAYABLE TO AUSTRALIA BY COMPANIES OVERSEAS, BY COUNTRY FROM WHICH RECEIVABLE AND CATEGORY OF INCOME**

(£A. million)

Year	United Kingdom	New Zealand	U.S.A. and Canada	Other	Total
<b>UNDISTRIBUTED INCOME(a)</b>					
1956-57.. ..	0.3	1.1	-0.1	2.1	3.4
1957-58.. ..	0.2	1.6	-0.1	2.6	4.3
1958-59.. ..	0.2	2.3	..	..	2.5
1959-60.. ..	0.1	2.0	-0.1	1.1	3.1
1960-61.. ..	0.9	1.7	..	0.9	3.5
<b>OTHER INCOME</b>					
1956-57.. ..	0.8	2.0	..	2.2	5.0
1957-58.. ..	0.5	1.9	..	1.8	4.2
1958-59.. ..	0.4	1.9	..	4.4	6.7
1959-60.. ..	0.3	2.3	..	2.7	5.3
1960-61.. ..	0.5	2.8	..	2.8	6.1
<b>TOTAL</b>					
1956-57.. ..	1.1	3.1	-0.1	4.3	8.4
1957-58.. ..	0.7	3.5	-0.1	4.4	8.5
1958-59.. ..	0.6	4.2	..	4.4	9.2
1959-60.. ..	0.4	4.3	-0.1	3.8	8.4
1960-61.. ..	1.4	4.5	..	3.7	9.6

(a) Unremitted profits of Australian branches plus undistributed profits of Australian subsidiaries.

4. **Net Annual Flow of Investment.**—The net annual flow of investment between Australia and overseas, and its classification by country, are shown in the following two tables. Changes in classifications have been made to these tables in order to conform with the presentation in *The Australian Balance of Payments*, 1958-59 to 1962-63. The annual inflow of investment in Australian public authority debt domiciled overseas and net overseas remittances by the insurance companies have been incorporated into both tables.

**NET ANNUAL FLOW OF INVESTMENT BETWEEN AUSTRALIA AND OVERSEA COUNTRIES, BY CATEGORY OF FLOW(a)(b)**

(£A. million)

Year	Annual inflow of investment				Annual outflow of investment				Net annual flow of investment to Australia
	In companies in Australia (c)	In public authority securities domiciled in Australia	In Australian public authority debt domiciled overseas	Total	In companies overseas	In foreign government securities	Net remittances from Australia by life insurance companies	Total	
1956-57 ..	104.9	-1.3	2.3	105.9	10.5	..	1.1	11.6	94.3
1957-58 ..	104.5	-1.9	12.4	115.0	6.5	..	4.8	11.3	103.7
1958-59 ..	125.3	-4.5	34.8	155.6	10.8	..	5.0	15.8	139.8
1959-60 ..	193.3	-2.3	34.8	225.8	3.4	..	2.4	5.8	220.0
1960-61 ..	236.1	-2.0	11.5	245.6	4.4	..	0.2	4.6	241.0

(a) These totals differ from that of private (net) capital items shown in Table 1 of *The Australian Balance of Payments*, 1958-59 to 1962-63.  
 (b) Increases in investment by some investors are offset against withdrawals of investment by other investors.  
 (c) The inflow to Australian companies through portfolio investment is partly estimated.

# NET ANNUAL FLOW OF INVESTMENT BETWEEN AUSTRALIA AND OVERSEAS COUNTRIES, BY REGION

(£A. million)

Year	United Kingdom	New Zealand	U.S.A. and Canada	I.B.R.D. (a)	Other	Net annual flow of investment to Australia
1956-57 ..	59.9	0.3	27.6	3.1	3.4	94.3
1957-58 ..	47.2	2.5	36.0	13.2	4.8	103.7
1958-59 ..	79.2	-11.5	62.8	2.2	7.1	139.8
1959-60 ..	118.5	3.0	85.7	-7.2	20.0	220.0
1960-61 ..	110.5	0.1	102.1	-7.5	35.8	241.0

(a) No particulars are available of the domicile of securities issued to the International Bank of Reconstruction and Development.

NOTE.—Minus sign (—) denotes outflow.

## UNIT TRUSTS, LAND TRUSTS, AND MUTUAL FUNDS

1. **General.**—Statistics relating to operations in Australia of unit trusts, land trusts and mutual funds have been collected quarterly since March, 1961, and are shown in the following tables. The figures do not include details of superannuation funds conducted by unit trusts management companies.

2. **Transactions of Trusts and Funds.**—Particulars of cash transactions in trust units and fund shares and of purchases and sales of investments by trusts and funds are given below.

## TRANSACTIONS OF TRUSTS AND FUNDS

(£ million)

Period	Cash transactions in respect of trust units and fund shares		Purchases and sales of investments(a)	
	Total amount received for trust units and fund shares issued (b)	Total amount paid for trust units and fund shares repurchased (c)	Purchases (d)	Sales (e)
Year ended—				
June, 1962 .. .. .	17.5	6.9	11.7	3.5
Quarter ended—				
March, 1961 .. .. .	2.6	1.8	3.6	1.6
June, 1961 .. .. .	3.2	2.0	2.7	1.4
September, 1961 .. .. .	4.3	1.9	3.2	1.1
December, 1961 .. .. .	3.2	1.5	2.2	0.7
March, 1962 .. .. .	4.9	1.6	3.4	0.7
June, 1962 .. .. .	5.1	1.9	2.9	1.0
September, 1962 .. .. .	4.1	1.3	3.8	0.8
December, 1962 .. .. .	3.7	1.8	4.1	1.7

(a) Commonwealth government, local government and semi-governmental securities, shares, debentures, unsecured notes, loans, deposits on term or notice of three months or longer, land and buildings, etc.

(b) Includes re-issues and new issues. Includes fees and expenses.

(c) Includes those units and fund shares intended for re-issue. (d) Payments for assets acquired during quarter. Includes brokerage and stamp duty.

(e) Receipts for assets sold or redeemed during quarter. Excludes brokerage and stamp duty.

3. Analysis of Purchases and Sales of Investments.—Details of purchases and sales of investments by trusts and funds during 1961–62 are given in the following table.

### ANALYSIS OF PURCHASES AND SALES OF INVESTMENTS BY TRUSTS AND FUNDS, 1961-62

(£ million)

Particulars	Shares (including preference shares)	Debentures, unsecured notes, deposits (a)	Common- wealth Government, local authority, and semi- governmental securities	Other (b)	Total
Purchases . . . . .	9.1	1.4	0.1	1.1	11.7
Sales . . . . .	2.7	0.2	0.2	0.4	3.5

(a) Excludes cash on hand and at bank, loans to authorized dealers in the short-term money market, and other deposits under three months term or notice. (b) Includes land and buildings, mortgages on land and buildings, and other investments.

4. Market Value of Trusts and Funds, and Cash and Short-term Deposits of Trusts and Funds.—The total market value of trusts and funds and the cash and short-term deposits of trusts and funds are shown in the following table.

### TOTAL MARKET VALUE OF TRUSTS AND FUNDS, AND CASH AND SHORT-TERM DEPOSITS OF TRUSTS AND FUNDS

(£ million)

At—	Total market value of trusts and funds(a)	Cash and short-term deposits		
		Cash(b)	Short-term deposits(c)	Total
31st March, 1961 . . . . .	81.0	1.4	3.2	4.6
30th June, 1961 . . . . .	84.0	0.6	3.2	3.8
30th September, 1961 . . . . .	85.8	0.7	2.5	3.2
31st December, 1961 . . . . .	87.6	0.9	2.6	3.5
31st March, 1962 . . . . .	92.6	1.0	2.5	3.5
30th June, 1962 . . . . .	91.8	0.6	3.6	4.2
30th September, 1962 . . . . .	93.6	1.1	2.6	3.7
31st December, 1962 . . . . .	98.4	0.9	2.1	3.0

(a) Includes value of land trusts at valuation. (b) Includes cash on hand and at bank. (c) Includes loans to authorized dealers in the short-term money market, and other deposits under three months term or notice.

### RURAL ADVANCES OF PASTORAL FINANCE COMPANIES

The following table is derived from returns supplied to the Reserve Bank by major pastoral finance companies, and shows the total rural advances outstanding at the end of June, 1957 to 1961, and of subsequent quarters to December, 1962.



## RURAL ADVANCES OF PASTORAL FINANCE COMPANIES(a)

(Source: Reserve Bank of Australia)

(£ million)

At end of—	New South Wales	Victoria	Queensland	South Australia	Western Australia and Tasmania	Total
June, 1957 ..	24.0	15.7	14.2	12.8	13.4	80.1
„ 1958 ..	28.4	14.5	20.0	14.4	15.6	92.9
„ 1959 ..	26.5	16.0	21.2	13.4	14.2	91.3
„ 1960 ..	29.6	17.7	24.3	14.9	15.4	101.9
„ 1961 ..	29.8	19.9	23.4	17.4	15.9	106.4
September, 1961 ..	32.2	21.7	24.7	17.5	16.0	112.1
December, 1961 ..	28.2	20.6	24.8	17.8	14.6	106.0
March, 1962 ..	28.8	17.8	24.3	17.1	14.3	102.3
June, 1962 ..	29.4	16.4	24.3	17.4	16.5	104.0
September, 1962 ..	32.4	18.6	25.4	17.3	16.9	110.6
December, 1962 ..	29.4	19.7	25.4	17.1	15.5	107.1

(a) Compiled from returns supplied by major pastoral finance companies. Advances are classified according to the location of the branch holding the advance, which in some cases may differ from the State of residence of the borrower. The statistics refer to the total advances outstanding at the end of the month shown.

## SHORT-TERM MONEY MARKET

1. **General.**—For some years prior to 1959, leading stockbrokers had been actively engaged in the acceptance of short-term funds against the security of government securities, but their operations were limited by the absence of suitable short-term securities and their liquidity requirements,

In February, 1959, the Commonwealth Bank (now the Reserve Bank) gave official status to the market by announcing that under certain conditions it would act as lender of last resort to authorized dealers in the short-term money market.

The form of organization so far developed consists of several companies authorized to act as dealers in the market. These dealers accept loans overnight, at call or for fixed periods in amounts of at least £25,000, and invest the funds in "money market securities", which have been defined as Commonwealth Government securities with currencies not exceeding three years.

Dealers are required to provide for a minimum capitalization and, in addition, to lodge with the Bank part of their capital in the form of money market securities as general backing for their operations. These lodgments which are referred to as "margins" are required to be equivalent on market values to at least:—(a) one per cent. of the total holdings by the dealer of securities maturing in one year; (b) two per cent. of the total holdings by the dealer of securities maturing within one to two years; and (c) four per cent. of the total holdings by the dealer of securities maturing within two to three years.

The Bank approves for each dealer the maximum portfolio of money market securities which may be carried and establishes a line of credit in favour of the dealer to the extent of that approved maximum portfolio. Under the line of credit, which is subject to renewal from time to time, the dealer may borrow in the last resort from the Bank against lodgment of security.

2. **Selected Assets and Liabilities of Authorized Dealers and Rates of Interest on Loans Accepted.**—In the following table, details of selected assets and liabilities of authorized dealers and the interest rates on loans accepted by dealers are given for June, 1959 to 1962, and for each month January to December, 1961 and 1962.

**SHORT-TERM MONEY MARKET: SELECTED ASSETS AND  
LIABILITIES OF AUTHORIZED DEALERS**

(Source: Reserve Bank of Australia)

Month	Liabilities to clients			Holdings of Common- wealth government securities (at face value)	Interest rates on loans accepted during month				Weighted average interest rate on loans out- standing (a) per cent. per annum
	All cheque- paying banks	Other clients	Total		At call		For fixed periods		
					Mini- mum per cent. per annum	Maxi- mum per cent. per annum	Mini- mum per cent. per annum	Maxi- mum per cent. per annum	
Average of weekly figures— £ million									
June, 1959 ..	28.3	19.8	48.1	50.4	2.94	3.13	3.00	3.50	3.11
June, 1960 ..	27.2	52.7	79.9	82.3	2.75	3.50	3.00	3.50	3.25
June, 1961 ..	34.4	62.7	97.1	100.4	2.50	4.88	3.50	4.83	4.17
June, 1962 ..	27.9	88.5	116.4	121.2	2.00	4.00	3.00	3.88	3.45
1961—									
January ..	32.1	66.8	98.9	101.4	2.50	4.50	3.50	4.50	3.73
February ..	35.0	63.9	98.9	101.4	2.38	4.03	2.88	4.31	3.43
March ..	44.3	54.7	99.0	101.6	2.50	4.56	3.38	4.63	3.82
April ..	40.3	54.8	95.1	98.5	3.00	4.81	3.94	4.75	4.23
May ..	33.8	61.4	95.2	98.3	2.75	4.83	4.13	4.88	4.19
June ..	34.4	62.7	97.1	100.4	2.50	4.88	3.50	4.83	4.17
July ..	31.9	67.6	99.5	102.5	2.25	4.88	3.38	4.88	3.76
August ..	34.7	67.7	102.4	105.6	2.25	4.25	3.00	4.25	3.45
September..	33.2	69.9	103.1	106.6	2.25	3.75	2.75	3.75	3.25
October ..	35.7	72.0	107.7	111.2	2.25	3.88	2.88	3.88	3.36
November..	33.5	76.3	109.8	113.5	2.25	4.31	2.75	4.34	3.62
December(b)	33.8	76.6	110.4	114.1	2.25	4.00	2.75	4.00	3.50
1962—									
January ..	35.6	74.8	110.4	114.0	2.00	3.75	2.75	3.88	3.13
February ..	34.9	73.8	108.7	112.5	2.00	3.93	3.00	3.94	3.43
March ..	34.7	76.0	110.7	114.8	2.00	4.00	3.50	3.94	3.46
April ..	34.2	79.5	113.7	118.0	2.25	4.06	3.65	4.13	3.64
May ..	29.6	87.7	117.3	121.9	2.00	4.06	3.25	4.13	3.62
June ..	27.9	88.5	116.4	121.2	2.00	4.00	3.00	3.88	3.45
July ..	32.8	84.6	117.4	121.3	2.00	3.81	2.75	3.75	3.34
August ..	33.1	82.2	115.3	120.0	2.00	4.13	3.38	4.13	3.59
September..	32.0	82.7	114.7	119.6	2.00	4.25	3.38	4.31	3.70
October ..	38.5	86.4	124.9	129.9	2.00	4.13	3.50	4.00	3.49
November..	33.0	96.5	129.5	135.1	2.00	4.00	3.25	3.94	3.50
December(b)	32.6	92.1	124.7	132.4	2.00	4.31	3.00	4.25	3.69

(a) As at last Wednesday.

(b) Excludes one Wednesday in December.

**FRIENDLY SOCIETIES**

1. General.—The total membership of friendly societies in Australia is about 450,000, but as certain benefits, such as medical attendance and free medicines, and in many cases funeral expenses, are granted to members' families as well as to members themselves, this figure must be more than doubled to arrive at an estimate of the number of persons who receive some direct benefit from these societies, even when due allowance is made for young and unmarried members. Legislation has conferred certain privileges on friendly societies, but, on the other hand, it insists on their registration, and it is the duty of the Registrars in the various States, prior to registering a new society, to see that its proposed rules conform to the law, and that the scale of contribution is sufficient to provide the promised benefits. Societies are obliged to forward to the Registrar annual returns about their membership and their finances, and reports are published in most of the States dealing with the returns received.

2. **Societies, Members and Revenue.**—The following table sets out the number of societies, members, etc., revenue and expenditure, and funds of registered societies for the year 1960–61. More detailed information is available in the bulletins *Finance, Part 1.—Public and Private Finance*, and issue No. 52, 1960–61, contains particulars for the year 1959–60.

#### FRIENDLY SOCIETIES(a), 1960–61

Particulars	New South Wales (b)	Victoria (c)	Queensland	South Australia	Western Australia	Tasmania (c)	Total
Registered societies .. ..	46	142	23	14	12	12	249
Branches .. ..	1,901	1,197	458	594	261	125	4,536
Benefit members at end of year ..	144,472	162,986	50,575	51,551	18,493	7,252	435,329
Average benefit members during year ..	144,108	164,310	50,592	51,895	18,813	7,536	437,254
Members who received sick pay ..	n.a.	28,598	8,881	9,295	3,172	1,565	n.a.
Total weeks sick pay granted ..	n.a.	443,520	135,441	167,064	57,140	27,403	n.a.
Average weeks per member sick ..	n.a.	15.5	15.3	18.0	18.0	17.5	n.a.
Deaths of benefit members ..	n.a.	2,421	1,096	1,038	342	299	n.a.
Proportion of deaths per 1,000 members (average) ..	n.a.	14.7	21.7	20.0	18.2	39.7	n.a.
Revenue—	£'000	£'000	£'000	£'000	£'000	£'000	£'000
Entrance fees, levies and members' contributions .. ..	3,497	2,682	781	1,446	616	25	9,047
Interest, dividends and rents .. ..	468	605	253	271	58	35	2,248
All other revenue .. ..	322	57		137	33	9	
Total .. ..	4,287	3,344	1,034	1,854	707	69	11,295
Expenditure—							
Sick pay .. ..	202	263	90	76	24	12	667
Medical attendance and medicine ..	2,595	1,554	517	567	519	4	5,756
Sums payable at death .. ..	147	80	58	57	20	22	384
Administration .. ..	812	526	203	280	61	15	1,897
All other expenditure .. ..	144	210	..	574	37	4	969
Total .. ..	3,900	2,633	868	1,554	661	57	9,673
Funds—Total .. ..	9,856	12,192	3,781	5,474	1,674	702	33,679

(a) Excludes juvenile branches, dispensaries, medical institutes and certain miscellaneous societies. Receipts and payments of subsidy under the Commonwealth medical and hospital benefit schemes are excluded. (b) Includes the Australian Capital Territory. (c) Year 1961.

#### L. PROBATES AND LETTERS OF ADMINISTRATION

The following table gives some particulars of the number and value of estates of deceased persons in each State for the latest year for which information is available. Owing to differences in legislation in the various States, the figures are not entirely comparable. From 1959–60 figures shown for Queensland relate to all estates dealt with; previous figures shown related only to estates dealt with by the Supreme Court.

#### PROBATES AND LETTERS OF ADMINISTRATION

Particulars	New South Wales 1960–61 (a)	Victoria 1961	Queensland 1960–61	South Australia 1961	Western Australia 1961	Tasmania 1961 (b)
Probates—						
Estates .. .. No.	21,786	n.a.	5,659	3,115	2,215	1,374
Gross value .. .. £'000	n.a.	n.a.	34,092	21,212	16,180	10,486
Net value .. .. £'000	129,528	n.a.	n.a.	19,983	14,649	9,932
Letters of Administration—						
Estates .. .. No.	n.a.	n.a.	1,138	733	261	197
Gross value .. .. £'000	n.a.	n.a.	6,571	2,028	1,163	579
Net value .. .. £'000	n.a.	n.a.	n.a.	1,810	955	514
Total—						
Estates .. .. No.	n.a.	15,233	6,797	3,848	2,476	1,571
Gross Value .. .. £'000	n.a.	105,255	40,663	23,240	17,343	11,065
Net Value .. .. £'000	n.a.	100,790	37,671	21,793	15,604	10,446

(a) Total estates of deceased persons assessed for death duty. Taxation Department.

(b) Estates dealt with by the

LOTTERIES AND BETTING

§ 1. Lotteries

State governments operate lotteries in New South Wales, Queensland and Western Australia. Tattersall Lotteries are operated under government licence in Victoria. Tasmanian Lotteries were operated under government licence until 30th September, 1961 when they surrendered their licence. In general, revenue derived by the State Governments from these lotteries is used directly or indirectly to provide funds for expenditure on hospitals, charities, etc. For information as to the origin, purpose and method of payment of proceeds or taxes to State revenues see Official Year Book No. 46, page 808 and earlier issues.

Details of ticket sales, prizes allotted, and taxes paid and other net contributions to State government revenues, relating to lotteries drawn during each of the years 1957-58 to 1961-62, are given in the following table.

LOTTERIES: VALUE OF TICKET SALES, PRIZES ALLOTTED, TAXES PAID AND OTHER NET CONTRIBUTIONS TO STATE GOVERNMENT REVENUES

(£'000)

Year	New South Wales	Victoria	Queensland	Western Australia	Tasmania	Total
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TICKET SALES

1957-58..	..	14,150	8,950	6,725	1,150	1,427	32,402
1958-59..	..	13,598	8,750	6,760	1,138	796	31,042
1959-60..	..	14,505	9,300	6,510	1,263	490	32,068
1960-61..	..	16,670	10,400	6,480	1,350	105	35,005
1961-62..	..	19,298	9,700	6,690	1,625	(a)	37,313

PRIZES ALLOTTED

1957-58..	..	9,087	5,370	4,285	640	868	20,250
1958-59..	..	8,725	5,250	4,308	628	485	19,396
1959-60..	..	9,292	5,570	4,149	698	299	20,008
1960-61..	..	10,659	6,240	4,130	758	64	21,851
1961-62..	..	12,349	5,820	4,262	920	(a)	23,351

TAXES PAID AND OTHER NET CONTRIBUTIONS TO STATE GOVERNMENT REVENUES

1957-58..	..	4,593	2,775	1,895	353	415	10,031
1958-59..	..	4,326	2,713	1,902	352	232	9,525
1959-60..	..	4,661	2,883	1,774	392	143	9,853
1960-61..	..	5,380	3,224	1,744	407	32	10,787
1961-62..	..	6,307	3,007	1,813	484	(a)	11,611

(a) Licence surrendered 30th September, 1961.

## § 2. Betting

Estimates of totalizator investments and investments with licensed bookmakers for the years 1957-58 to 1961-62 are given in the following table.

**TOTALIZATOR INVESTMENTS AND INVESTMENTS WITH LICENSED BOOKMAKERS**  
(£'000)

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Total
<b>TOTALIZATOR INVESTMENTS(a)</b>							
1957-58 .. ..	13,831	11,740	2,579	2,236	2,498	944	33,828
1958-59 .. ..	14,340	11,532	2,771	2,014	2,018	823	33,498
1959-60 .. ..	14,691	13,198	2,623	2,294	2,263	793	35,862
1960-61 .. ..	13,677	15,298	2,912	2,361	2,342	750	37,340
1961-62 .. ..	13,880	27,129	2,851	2,506	9,257	711	56,334
<b>INVESTMENTS WITH LICENSED BOOKMAKERS(b)</b>							
1957-58 .. ..	113,147	64,250	n.a.	28,335	27,005	12,031	n.a.
1958-59 .. ..	100,201	62,150	n.a.	26,366	24,385	11,103	n.a.
1959-60 .. ..	110,792	71,600	n.a.	27,269	25,032	11,884	n.a.
1960-61 .. ..	111,911	78,585	n.a.	28,922	21,751	13,158	n.a.
1961-62 .. ..	113,543	75,824	n.a.	28,442	14,167	12,975	n.a.

(a) Estimated from taxes on totalizators.

(b) Estimated from taxes on betting with licensed bookmakers.

**PENSION AND SUPERANNUATION SCHEMES**

**§ 1. Government, Local Government and Semi-governmental Pension and Superannuation Schemes**

1. **General.**—The Commonwealth and all State governments have established pension and superannuation schemes for their employees. These schemes are operated through funds to which both the governments and the employees make contributions.

Employees of local government and semi-governmental authorities are covered either by the Commonwealth and State government schemes or by a separate scheme of the authority which is operated either through a separately constituted fund or through a life insurance office.

2. **Schemes operated through Separately Constituted Funds.**—In the table on page 907, particulars cover the following funds and authorities.

- (i) *Commonwealth.* The Superannuation Fund; Defence Forces Retirement Benefits Fund.
- (ii) *New South Wales.* The State Superannuation Fund; Government Railways Superannuation Fund; Police Superannuation and Reward Fund; State Government Non-contributory Pensions and Gratuities; Metropolitan Meat Industry Board—Officers' Endowment Fund and Wage Employees' Provident Fund; Local Government Provident Fund.
- (iii) *Victoria.* The State Superannuation Fund; Police Pensions and Police Superannuation Fund; Melbourne Harbor Trust Superannuation Fund; Geelong Harbor Trust Superannuation Fund; Melbourne and Metropolitan Board of Works Superannuation Fund; State Electricity Commission Provident Fund; Country Fire Authority Superannuation Fund; Gas and Fuel Corporation Superannuation Fund; Victorian Inland Meat Authority Staff Superannuation Fund; State Savings Bank of Victoria Superannuation Fund; Melbourne University Provident Fund; Port Phillip Pilots Sick and Superannuation Fund; Married Women Teachers Pensions Fund; and Local Authorities Superannuation Fund.
- (iv) *Queensland.* The Public Service Superannuation Fund; Railways Superannuation Fund; Police Superannuation Fund.

- (v) *South Australia.* The State Superannuation Fund; Police Pensions Fund.
- (vi) *Western Australia.* The State Superannuation Fund and Provident Account; Metropolitan (Perth) Passenger Transport Trust Provident Fund; State Electricity Commission—Electricity and Gas Department—Superannuation Fund; Western Australian Fire Brigades Board Superannuation Fund; University of Western Australia Superannuation Scheme.
- (vii) *Tasmania.* The State Public Service Fund; Public Service "Old" Fund; State Teachers Superannuation Fund; Police Provident Fund; Hobart and Launceston Marine Boards Superannuation Funds; Metropolitan Transport Trust (Hobart) Employees Retiring Allowance Fund; University of Tasmania Superannuation Fund and Invalidity Pensions Fund.

For details of approved authorities contributing to the State Superannuation Funds see annual bulletin *Finance, Part I.—Public and Private Finance, 1960–61.*

**GOVERNMENT, LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL PENSION AND SUPERANNUATION SCHEMES OPERATED THROUGH SEPARATELY CONSTITUTED FUNDS, 1960–61**

Particulars	C'wlth	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
<b>Income—</b>								
Contributions—								
Employees ..	12,462	6,441	4,924	1,243	1,155	773	590	27,588
Employing authorities ..	8,501	12,701	8,058	1,313	1,191	1,060	489	33,313
Interest, dividends and rent ..	4,172	5,102	3,326	540	771	352	273	14,536
Other income ..	..	91	(a) 1,522	7	8	6	7	1,641
<b>Total ..</b>	<b>25,135</b>	<b>24,335</b>	<b>17,830</b>	<b>3,103</b>	<b>3,125</b>	<b>2,191</b>	<b>1,359</b>	<b>77,078</b>
<b>Expenditure—</b>								
Pensions ..	8,468	9,837	6,232	734	1,525	1,198	528	28,522
Lump sum payments—								
On retirement ..	1,003	1,822	423	65	33	25	28	6,743
On resignation(b)	1,941		992	93	144	85	89	
Gratuities ..	1,347	256	43	..	..	..	..	1,646
Other expenditure ..	..	340	23	..	75	8	8	454
<b>Total ..</b>	<b>12,759</b>	<b>12,255</b>	<b>7,713</b>	<b>892</b>	<b>1,777</b>	<b>1,316</b>	<b>653</b>	<b>37,365</b>
<b>Assets at end of year—</b>								
Cash—								
Deposits with Treasury ..	120	90	343	8,934	235	31	..	9,753
Other deposits and cash ..	..	302	593	..	129	36	90	1,150
Commonwealth Govt. securities	27,785	3,166	9,750	..	3,669	146	1,151	45,667
Local and semi-govt. securities ..	67,419	73,795	62,749	3,734	5,615	7,640	3,220	224,172
Mortgages ..	1,631	..	107	..	6,788	..	1,424	9,950
Loans to building societies ..	236	4,358	1,062	..	..	..	..	5,656
Company shares, debentures and notes ..	..	21,907	1,011	..	..	..	5	22,923
Other assets ..	8	1,222	882	..	159	18	60	2,349
<b>Total ..</b>	<b>97,199</b>	<b>104,840</b>	<b>76,497</b>	<b>12,668</b>	<b>16,595</b>	<b>7,871</b>	<b>5,950</b>	<b>321,620</b>
<b>Contributors at end of year—</b>	No.	No.	No.	No.	No.	No.	No.	No.
Males ..	138,868	121,049	73,076	13,709	14,105	12,435	7,351	407,930
Females ..	16,981			5,364	1,808	790	2,394	
<b>Pensions at end of year—</b>								
Ex-employees—								
Males ..	12,486	26,968	10,110	1,285	2,966	3,006	971	84,445
Females ..	1,064		1,376	377	533		240	
Widows ..	7,468		7,003	450	2,486		669	
Children ..	1,918		732	82	234		123	

(a) Includes transfers from other funds. (b) Includes refunds of contributions to continuing members and refunds of contributions to members withdrawing from the scheme.

3. Schemes operated through Life Insurance Offices.—In the table following, particulars cover the following funds and authorities.

- (i) *Commonwealth.* The Australian National University Staff Superannuation Scheme; Joint Coal Board Staff Superannuation Fund.
- (ii) *New South Wales.* The Metropolitan Water, Sewerage and Drainage Board Group Assurance Scheme; the University of Sydney Professorial Superannuation System; Local Government (Servants) Insurance.
- (iii) *Victoria.* The Country Fire Authority Superannuation and Endowment Fund; State Savings Bank of Victoria Provident Fund; University of Melbourne Staff Superannuation Scheme; Victorian Hospitals Association Trustee Superannuation Trust Account; Local Authorities Employees Insurance Account.
- (iv) *Queensland.* The Brisbane City Council Superannuation Fund.
- (v) *South Australia.* Schemes operated by:—University of Adelaide; Municipal Tramways Trust; Metropolitan and Export Abattoirs Board; Betting Control Board; National Park Commission; Fauna and Flora Board of South Australia; Adelaide, Queen Victoria and other hospitals.
- (vi) *Western Australia.* The University of Western Australia Superannuation Scheme; Lotteries Commission Staff Superannuation Plan; Motor Vehicle Insurance Trust Staff Superannuation Fund; King's Park Board Superannuation Scheme; Fremantle Cemetery Board Superannuation Scheme; Karrakatta Cemetery Board Staff Contributory Endowment Fund; Local Government Authorities Superannuation Scheme.
- (vii) *Tasmania.* Marine Boards Superannuation Schemes (Launceston, Burnie, Devonport, Circular Head, Strahan, King Island); University of Tasmania Superannuation Board; Metropolitan Transport Trust (Hobart) Staff Pension Scheme and Employees Superannuation Fund (Launceston and Burnie); Municipalities Superannuation Scheme.

**LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL PENSIONS AND SUPER-ANNUATION SCHEMES OPERATED THROUGH LIFE INSURANCE OFFICES, 1960-61**

Particulars							Amount
							£'000
<b>Income—</b>							
Contributions—							
Employees	..	..	..	..	..	..	1,826
Employing authorities	..	..	..	..	..	..	2,043
Surrenders	..	..	..	..	..	..	380
Death claims	..	..	..	..	..	..	152
Matured policies	..	..	..	..	..	..	291
Other income	..	..	..	..	..	..	64
<b>Total</b>	..	..	..	..	..	..	<b>4,756</b>
<b>Expenditure—</b>							
Premiums paid to insurance companies	..	..	..	..	..	..	3,461
Benefits—							
On death or retirement	..	..	..	..	..	..	433
On resignation or dismissal	..	..	..	..	..	..	354
Other expenditure (a)	..	..	..	..	..	..	472
<b>Total</b>	..	..	..	..	..	..	<b>4,720</b>
<b>Contributions at end of year</b>							<b>No.</b>
							<b>43,622</b>

(a) Includes transfers to other funds.

## § 2. Parliamentary Pension and Superannuation Schemes

Pensions and superannuation schemes have been established for members of the Commonwealth and State Parliaments. Details of these schemes, except for Tasmania, are given in pages 91 to 99 of Official Year Book No. 38. Details of the Tasmanian scheme are given on page 72 of Official Year Book No. 44. All the schemes are operated through funds to which the members of Parliament and the Commonwealth or State governments contribute.

## PARLIAMENTARY PENSION AND SUPERANNUATION SCHEMES, 1960-61

Particulars	C'wlth	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
	£	£	£	£	£	£	£	£
Income—								
Contributions—								
Members ..	47,755	29,915	15,456	15,499	7,382	13,663	8,415	138,085
Government ..	40,696	14,555	29,087	15,499	13,382	13,520	1,496	128,235
Interest ..	17,610	7,107	..	15,684	5,413	3,681	823	50,318
<b>Total ..</b>	<b>106,061</b>	<b>51,577</b>	<b>44,543</b>	<b>46,682</b>	<b>26,177</b>	<b>30,864</b>	<b>10,734</b>	<b>316,638</b>
Expenditure—								
Pension payments(a) ..	57,067	31,374	44,543	13,868	12,437	12,671	8,578	180,538
Other ..	..	..	..	150	75	..	132	357
<b>Total ..</b>	<b>57,067</b>	<b>31,374</b>	<b>44,543</b>	<b>14,018</b>	<b>12,512</b>	<b>12,671</b>	<b>8,710</b>	<b>180,895</b>
Assets at end of year—								
Cash—								
Deposits with Treasury	6,854	6,367	..	..	4,803	2,207	..	20,231
Other deposits and cash ..	..	..	..	311	..	378	958	1,647
Commonwealth Government securities ..	424,611	39,076	..	39,940	83,559	22,500	18,389	628,075
Local government and semi-governmental securities ..	..	115,450	..	300,420	38,500	62,538	1,900	518,808
Other assets ..	..	8,748	..	..	1,585	..	156	10,489
<b>Total ..</b>	<b>431,465</b>	<b>169,641</b>	<b>..</b>	<b>340,671</b>	<b>128,447</b>	<b>87,623</b>	<b>21,403</b>	<b>1,179,250</b>
	No.	No.	No.	No.	No.	No.	No.	No.
Contributors at end of year—								
Males ..	179	97	100	73	57	79	52	637
Females ..	5	..	..	..	2	1	2	10
Pensioners at end of year—								
Ex-members ..	50	29	n.a.	19	12	18	8	n.a.
Widows ..	21	23	n.a.	12	10	19	3	n.a.

(a) Includes lump sum payments.

## § 3. Coal and Oil-Shale Mine Workers Superannuation Schemes

In all States except South Australia, superannuation schemes have been established for coal and oil-shale mine workers. These schemes are operated through funds to which mine workers, mine owners and the State governments contribute.



## COAL AND OIL-SHALE MINE WORKERS SUPERANNUATION SCHEMES, 1960-61

Particulars							Amount
							(£'000)
<b>Income—</b>							
Contributions—							
Mine workers	..	..	..	..	..	..	407
Mine owners	..	..	..	..	..	..	1,795
State governments	..	..	..	..	..	..	182
Interest, dividends and rent	..	..	..	..	..	..	366
<i>Total</i>	..	..	..	..	..	..	2,750
<b>Expenditure—</b>							
Pension payments	..	..	..	..	..	..	2,091
Lump sum payments	..	..	..	..	..	..	18
Refunds of contributions	..	..	..	..	..	..	1
Administration	..	..	..	..	..	..	52
<i>Total</i>	..	..	..	..	..	..	2,162
<b>Assets at end of year—</b>							
Deposits with Treasury	..	..	..	..	..	..	147
Other deposits and cash	..	..	..	..	..	..	43
Commonwealth Government securities	..	..	..	..	..	..	291
Local government and semi-governmental securities	..	..	..	..	..	..	7,419
Other assets	..	..	..	..	..	..	193
<i>Total</i>	..	..	..	..	..	..	8,093
<b>Contributors at end of year—</b>							No.
Males	..	..	..	..	..	..	17,450
Females	..	..	..	..	..	..	20
<b>Pensioners at end of year—</b>							
Former employees—							
Males	..	..	..	..	..	..	6,699
Females	..	..	..	..	..	..	3
Widows	..	..	..	..	..	..	3,921
Children	..	..	..	..	..	..	95

## § 4. Private Superannuation, Pension and Retiring Allowance Schemes

1. General.—(i) *Private Superannuation, Pension and Retiring Allowance Schemes conducted by Private Businesses.* In this section, details are given of the results of a survey of private superannuation, pension and retiring allowance schemes conducted by private businesses, for the benefit of their employees, during the year ended June, 1961, or the accounting period nearest to that year. Similar surveys were conducted in 1951-52 and 1955-56.

Separate information was requested for the following:—

- (a) Schemes operated through life insurance offices, friendly societies, unit trusts, etc.;
- (b) Superannuation, pension and retiring allowance funds; and
- (c) Direct payments by the employer of pensions and/or retiring allowances.

The survey was based upon a sample of all businesses with a payroll of over £200 a week. Government airlines and banks were included, if contributing to their own separate funds rather than to State or Commonwealth superannuation funds, but other government businesses were excluded. Also excluded were rural industries, private domestic services and statutory coal miners' pension funds.

The figures shown in this statement are estimates for the whole field from which the sample was drawn. Some indication of the extent of the field surveyed is given by the fact that the figures relate to approximately 79 per cent. of all employees in private employment, excluding those employed in rural industries and private domestic service.

(ii) *Self-employed and other Superannuation and Retirement Schemes.* A second survey was carried out to obtain details for 1960-61 of other superannuation and retirement schemes run by private organizations for accredited members, whether they were self-employed persons, employees whose contributions were paid or supplemented by an employer, or employees contributing on their own behalf independently of any arrangements made by their employers. Paragraph 4 on page 912 relates to this survey.

2. **Types of Private Superannuation, Pension and Retiring Allowance Schemes.**—The survey showed that some type of scheme was operated by 53 per cent. of businesses (State branches and subsidiary companies being treated as separate businesses). The percentage varied between industries, 54 per cent. of businesses in manufacturing industry operating schemes, 64 per cent. in wholesale and retail trade, and 45 per cent. in other industries. Ninety-three per cent. of large businesses (monthly pay-roll over £20,000) operated schemes; 69 per cent. of medium businesses (monthly pay-roll £3,000 to £20,000); and 43 per cent. of small businesses (monthly pay-roll £860 to £3,000). Of the businesses which operated schemes, 66 per cent. operated a life insurance scheme but no superannuation, etc., fund; 14 per cent. operated both a life insurance scheme and superannuation, etc., fund; 19 per cent. operated a superannuation, etc., fund but no life insurance scheme; and one per cent. operated only direct payments. The percentage of businesses using a life insurance scheme without a superannuation, etc., scheme was greater among small businesses than among large.

3. **Financial Operations of Private Superannuation, Pension and Retiring Allowance Schemes.**—(i) *Operated through Life Insurance Offices, etc.* The following table shows details of the contributions to these schemes and of benefits paid through them during 1960–61.

**PRIVATE SUPERANNUATION, ETC. SCHEMES OPERATED THROUGH LIFE INSURANCE OFFICES, ETC.(a): AMOUNTS CONTRIBUTED AND LUMP SUM BENEFITS PAID, 1960–61**

(£ million)

Industry	Contributions			Lump sum benefits paid(b)		
	Employee	Employer	Total	On retirement or death	On resignation or dismissal	Total
Manufacturing ..	4.9	7.7	12.6	2.1	1.0	3.1
Non-manufacturing ..	5.2	9.0	14.2	2.0	1.2	3.2
<b>Total ..</b>	<b>10.1</b>	<b>16.7</b>	<b>26.8</b>	<b>4.1</b>	<b>2.2</b>	<b>6.3</b>

(a) Includes schemes operated partly through life insurance offices, etc. totalling £m. 0.4 were paid.

(b) In addition, pensions

The average contributions per employee covered by these schemes were:—by employees £42.0; by employers, £70.3; total, £112.3. Of the amounts contributed, employees paid 38 per cent. in 1960–61 (39 per cent. in 1955–56 and 1951–52), and employers 62 per cent. in 1960–61 (61 per cent. in 1955–56 and 1951–52).

(ii) *Superannuation, Pension and Retiring Allowance Funds.* (a) *Income and Expenditure.* The following table shows particulars of the income and expenditure during 1960–61 of these funds.

**SUPERANNUATION, PENSION AND RETIRING ALLOWANCE FUNDS:  
INCOME AND EXPENDITURE, 1960–61**

(£ million)

Industry	Income				Expenditure			
	Contributions			Total	Pensions paid	Lump sum payments	Other (a)	Total
	Em- ployee	Em- ployer	Other					
Manufacturing ..	3.8	7.4	6.1	17.3	1.0	3.1	1.2	5.3
Non-manufacturing ..	6.4	13.4	11.7	31.5	3.4	4.6	0.7	8.7
<b>Total ..</b>	<b>10.2</b>	<b>20.8</b>	<b>17.8</b>	<b>48.8</b>	<b>4.4</b>	<b>7.7</b>	<b>1.9</b>	<b>14.0</b>

(a) Includes administrative expenses payable from funds (£m.0.1), loss on sale of investments, life insurance premiums paid, etc.

The average contributions per employee covered by these schemes were:—by employees, £42.1; by employers, £85.9; total, £128.0. Of the total income in 1960–61, employee contributions constituted 21 per cent., employer contributions 43 per cent., and other income 36 per cent. Corresponding percentages in 1955–56 were 22, 50 and 28; and in 1951–52, 23, 55 and 22.

(b) *Assets of Funds.* In 1960–61, the assets of superannuation, pension and retiring allowance funds totalled £m. 297.2. Liabilities to sundry creditors amounted to £m. 2.3, leaving £m. 294.9 as the amount of funds in existence at the end of 1960–61. The composition of the assets is shown below, together with comparative information for previous surveys.

**BOOK VALUE OF SUPERANNUATION, PENSION AND RETIRING ALLOWANCE FUNDS, BY TYPE OF ASSET**

(Per cent.)

Survey	Cash and bank balances	Common-wealth Government securities	Local government and semi-governmental securities	Shares in companies, debentures, loans, etc.	Other	Total
1951–52.. ..	8	42	19	19	12	100
1955–56.. ..	8	30	25	24	13	100
1960–61.. ..	3	19	22	46	10	100

(iii) *Direct Payments by the Employer of Pensions and, or, Retiring Allowances.* Some businesses make direct payments of pensions and retiring allowances, either instead of, or in addition to, operating a scheme through a life insurance office, or a superannuation, pension and retiring allowance fund. In 1960–61, 10,200 direct payments of pensions were made, totalling £m. 2.8, and 3,800 retiring allowances were paid, totalling £m. 2 5. Payments per head of recipient in 1960–61 were:—Pensions, £275; retiring allowances, £657. Corresponding figures in 1955–56 were £221 and £632, and in 1951–52, £161 and £333.

**4. Self-employed and Other Superannuation and Retirement Schemes.**—Income and expenditure of these schemes during 1960–61 are shown in the table below.

**SELF-EMPLOYED AND OTHER SUPERANNUATION AND RETIREMENT SCHEMES: INCOME AND EXPENDITURE, 1960–61**

(£'000)

Particulars							Amount
<b>Income—</b>							
Contributions by members	..	..	..	..	..	..	1,275.5
Other income	..	..	..	..	..	..	230.7
<i>Total</i>	..	..	..	..	..	..	1,506.2
<b>Expenditure—</b>							
Superannuation and retiring benefits paid				..	..	..	63.5
Administrative expenses	..	..	..	..	..	..	15.1
Other expenditure	..	..	..	..	..	..	80.8
<i>Total</i>	..	..	..	..	..	..	159.4

The assets at book value of these schemes totalled £m. 2.9 at the end of 1960–61.

## CHAPTER XXI

### PUBLIC FINANCE

**NOTE.**—The subject of “Public Finance” is dealt with in this chapter under the two major divisions of Commonwealth Finance and State Finance. The close financial relations between the Commonwealth and States, however, particularly since the Financial Agreement has been in operation, demand also a combination of these two divisions under the heading of Commonwealth and State Finance. Under the Financial Agreement, the Commonwealth assumed the liability to bondholders for the States’ Securities existing at the date of the Agreement and now arranges for all borrowings for and on behalf of the Commonwealth or any State and for all conversions, renewals, redemptions and consolidations of such securities. In view of this, it is convenient to deal with the Commonwealth and State Government Securities on Issue in a separate division of this chapter (p. 955).

The subject of income taxes is also dealt with in a separate division at the end of this chapter.

For further detailed information on the subjects covered by this chapter, *see* the annual bulletins *Finance, Part I.—Public and Private Finance* and *Part II.—Commonwealth Taxation*, published by this Bureau. Current information in summarized form is contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, and the *Digest of Current Economic Statistics*.

#### COMMONWEALTH FINANCE

##### § 1. Financial Provisions of the Constitution

The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth are contained in Sections 81 to 105A of the Commonwealth Constitution (*see* pp. 17–20 of this Year Book). Two other sections which have a most important bearing on questions of Commonwealth finance are Sections 69 and 51.

Section 69 provides for the transfer from the States to the Commonwealth of certain specified departments, and Section 51, in outlining the powers of the Commonwealth Parliament, implies the transfer or creation of other departments. Sections 87 and 96 deal with the financial relations between the Commonwealth and the States. These matters have been treated in previous issues of the Official Year Book, and on pages 932–6 of this issue a summary is given of the present provisions for Commonwealth financial assistance to the States.

The *Audit Act* 1901–1961 lays down the procedure which must be followed in accounting for the receipt and disbursement of public funds. The general administration of Commonwealth finances is the responsibility of the Treasurer of the Commonwealth.

##### § 2. Commonwealth Public Account

**1. Nature of Account.**—The Commonwealth Public Account includes the Consolidated Revenue Fund, the Trust Fund and the Loan Fund. Ordinary revenues from taxation and other sources are paid into the Consolidated Revenue Fund, from which the main expenditures are for defence, war and repatriation services, social services, payments to the States, Commonwealth business undertakings (mostly postal, telephone and telegraph) and administration. The Trust Fund covers special transactions outside the ordinary operations of departmental expenditures, such as pension funds and moneys held for expenditure by the Commonwealth at some future time. The Loan Fund receives its funds from the sale of Commonwealth securities, and expenditures from the Fund are made in accordance with the purpose of issue of each loan. The main disbursements from the Loan Fund are to the States, either by way of distribution of the proceeds of loans raised by the Commonwealth on their behalf or in accordance with the provisions of the Commonwealth and State Housing Agreements, and the remaining disbursements are for Commonwealth purposes such as defence or war service land settlement.

**2. Summary of Receipts and Expenditure.**—A summary of transactions on the Commonwealth Public Account for 1961–62 and the four preceding years is given in the table below.

**COMMONWEALTH PUBLIC ACCOUNT: SUMMARY OF TRANSACTIONS**  
(£ million)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
<b>Expenditure—</b>					
Consolidated Revenue Fund(a) ..	1,219.4	1,268.2	1,396.9	1,495.7	1,619.4
Loan Fund—					
Defence services .. ..		37.3	12.0		23.6
State works and housing programmes ..	196.9	207.1	214.9	225.6	244.6
War service land settlement .. ..	8.7	5.7	6.9	2.0	1.6
Mount Isa Railway Agreement .. ..					3.8
Total Expenditure .. ..	1,425.0	1,518.3	1,630.7	1,723.3	1,893.0
<b>Redemptions—</b>					
Loan fund .. ..				5.0	
National Debt Sinking Fund .. ..	89.1	95.2	95.2	96.3	94.6
Total Expenditure and Redemptions ..	1,514.1	1,613.5	1,725.9	1,824.6	1,987.6
<b>Receipts—</b>					
Consolidated Revenue Fund .. ..	1,323.8	1,296.1	1,438.3	1,638.3	1,641.5
National Debt Sinking Fund .. ..	75.8	72.3	71.1	73.8	76.7
Net movement in cash balances of other Trust Funds .. ..	12.8	11.7	2.9	-12.0	2.2
Total Receipts .. ..	1,412.4	1,380.1	1,512.3	1,700.1	1,720.4
<i>Excess of Expenditure and Redemptions over Receipts to be met from Borrowings</i> ..	101.7	233.4	213.6	124.5	267.2
<b>Borrowings—</b>					
Public loan proceeds—					
Australia .. ..	101.1	174.9	142.6	114.9	224.0
Overseas .. ..	10.9	29.0	42.1	25.4	16.2
Increase in temporary borrowings ..	-10.0	31.0	30.0	-15.0	22.0
Reduction in cash balances .. ..	-0.3	-1.5	-1.1	-0.8	5.0
Total .. ..	101.7	233.4	213.6	124.5	267.2

(a) Excludes payments to Loan Consolidation and Investment Reserve:—1957-58, £104.4 million; 1958-59, £27.9 million; 1959-60, £41.4 million; 1960-61, £142.6 million; 1961-62, £22.2 million.

### § 3. Commonwealth Consolidated Revenue Fund

#### REVENUE

1. **Sources of Revenue.**—The following table shows details of the revenue from each source and the amount per head of population under each of the main headings during the years 1957-58 to 1961-62. Taxation constitutes the main sources of Commonwealth revenue, accounting for 86.3 per cent. in 1961-62.

#### COMMONWEALTH CONSOLIDATED REVENUE FUND: SOURCES OF REVENUE (£'000)

Source	1957-58	1958-59	1959-60	1960-61	1961-62
<b>Taxation .. ..</b>	1,161,533	1,133,298	1,249,790	1,425,239	1,416,524
Per head of population .. ..	£119 4 6	£113 18 4	£122 19 3	£137 3 3	£133 11 2
<b>Business undertakings .. ..</b>	108,228	116,896	137,238	153,867	158,389
Per head of population .. ..	£11 2 2	£11 15 1	£13 10 1	£14 16 2	£14 18 8
<b>Territories .. ..</b>	2,845	3,189	4,198	5,455	5,996
Per head of population .. ..	£0 5 10	£0 6 5	£0 8 3	£0 10 6	£0 11 4
<b>Other revenue—</b>					
Interest .. ..	10,920	11,572	13,276	14,588	17,069
Coinage .. ..	223	149	415	321	589
Defence .. ..	5,776	6,185	5,832	5,827	4,806
Civil aviation .. ..	1,472	1,497	1,872	2,621	3,806
Health .. ..	105	92	106	119	111
Patents, trade marks, etc. ..	318	351	399	476	582
Bankruptcy .. ..	98	98	113	143	169
Shipping and transport .. ..	1,128	621	2,645	1,761	1,832
Net profit on Australian note issue	12,592	10,935	10,516	12,930	15,751
Surplus balances of trust accounts	3,991	5,722	5,674	2,053	3,525
Australian Aluminium Production Commission .. ..				2,500	250
Reserve Bank Reserve Fund .. ..				2,691	3,352
Commonwealth Banking Corporation				756	921
Joint Coal Board—repayment of advances .. ..	1,100	143			
Other .. ..	13,442	5,302	6,212	6,932	7,870
<b>Total, Other Revenue .. ..</b>	51,165	42,667	47,060	53,718	60,633
Per head of population .. ..	£5 5 1	£4 5 9	£4 12 7	£5 3 5	£5 14 4
<b>Grand Total .. ..</b>	1,323,771	1,296,050	1,438,286	1,638,279	1,641,542
Per head of population .. ..	£135 17 7	£130 5 7	£141 10 2	£157 13 4	£154 15 6

A graphical representation of the revenue and expenditure of the Commonwealth Consolidated Revenue Fund appears on page 927.

2. Taxation.—(i) *Total Collections.* (a) *Amount.* Collections under each heading for the years 1957–58 to 1961–62 are shown below.

## COMMONWEALTH TAXATION: TOTAL NET COLLECTIONS

(£'000)

Type of tax	1957–58	1958–59	1959–60	1960–61	1961–62
Customs .. ..	71,717	71,671	84,381	101,785	85,160
Excise .. ..	231,334	236,254	252,111	257,409	265,645
Sales tax .. ..	137,777	143,617	164,185	173,040	148,824
Land tax .. ..	11	..	..	..	..
Pay-roll tax .. ..	48,552	49,619	55,162	61,260	60,972
Income taxes—					
Individuals .. ..	435,071	388,965	442,164	518,744	537,345
Companies .. ..	215,348	219,695	229,130	282,562	282,688
Dividend (withholding) .. ..	..	..	..	5,960	8,117
Estate duty .. ..	13,774	13,309	13,753	14,807	17,029
Gift duty .. ..	2,205	2,000	2,435	2,783	2,797
Special industry taxes(a) .. ..	5,744	8,168	6,469	6,889	7,947
<b>Total Taxation ..</b>	<b>1,161,533</b>	<b>1,133,298</b>	<b>1,249,790</b>	<b>1,425,239</b>	<b>1,416,524</b>

(a) Used for purposes of industries concerned. The taxes are as follows:—Flour Tax, Wheat Tax, Wool Levy, Wool Contributory Charge, Wheat Export Charge, Miscellaneous Export Charges, Stevedoring Industry Charge, Tobacco Industry Charge, Gold Tax, Dairy Produce Levy, Canning Fruit Charge and Cattle Slaughter Levy.

(b) *Proportion of each Class to Total Collections.* The following table shows the proportion of the total collections represented by returns from each class of taxation for the years 1957–58 to 1961–62.

## COMMONWEALTH TAXATION: PROPORTION OF EACH CLASS TO TOTAL NET COLLECTIONS

(Per cent.)

Type of tax	1957–58	1958–59	1959–60	1960–61	1961–62
Customs .. ..	6.2	6.3	6.8	7.2	6.0
Excise .. ..	20.0	20.9	20.2	18.1	18.8
Sales tax .. ..	11.8	12.7	13.1	12.1	10.5
Land tax .. ..	..	..	..	..	..
Pay-roll tax .. ..	4.2	4.4	4.4	4.3	4.3
Income taxes .. ..	56.0	53.7	53.7	56.6	58.5
Estate duty .. ..	1.2	1.2	1.1	1.0	1.2
Gift duty .. ..	0.2	0.2	0.2	0.2	0.2
Special industry taxes(a) .. ..	0.4	0.6	0.5	0.5	0.5
<b>Total Taxation ..</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) See note (a) to previous table.

(ii) *Customs Revenue.* The following table gives details of net customs receipts for the years 1957-58 to 1961-62.

**COMMONWEALTH CUSTOMS REVENUE: CLASSIFICATION OF NET RECEIPTS**

(£'000)

Class	1957-58	1958-59	1959-60	1960-61	1961-62
Foodstuffs of animal origin .. ..	347	336	473	677	515
Foodstuffs of vegetable origin .. ..	1,546	1,512	1,784	2,100	2,063
Spirituous and alcoholic liquors ..	3,047	3,274	4,762	5,202	5,847
Tobacco, cigars and cigarettes .. ..	12,375	12,190	13,034	13,352	11,997
Animal substances (not foodstuffs) ..	5	5	7	8	5
Vegetable substances and fibres .. ..	222	182	259	168	247
Yarns, textiles and apparel .. ..	10,284	9,800	12,176	15,573	12,863
Oils, fats and waxes .. ..	10,039	11,123	10,970	12,430	9,149
Pigments, paints and varnishes .. ..	160	179	219	317	284
Rocks and minerals .. ..	35	24	56	46	62
Metals, metal manufactures and machinery ..	18,389	18,348	23,036	28,655	20,836
Rubber and leather and manufactures thereof	1,291	620	606	939	838
Wood and wicker, raw and manufactured ..	1,510	1,398	1,802	2,353	1,514
Earthenware, cement, china, glass and stone-ware .. ..	1,822	1,866	2,233	3,002	2,673
Pulp, paper and board, paper manufactures and stationery .. ..	848	940	1,426	2,361	2,404
Sporting materials, toys, fancy goods, jewellery and timepieces .. ..	2,165	2,297	2,825	3,526	3,237
Optical, surgical and scientific instruments, photographic goods .. ..	1,118	1,169	1,404	1,683	1,592
Chemicals, pharmaceutical products, essential oils and fertilizers .. ..	1,302	1,317	1,690	1,806	2,131
Miscellaneous goods .. ..	2,174	2,269	3,047	5,045	4,762
Primage .. ..	2,483	2,078	1,939	2,298	1,840
Other receipts .. ..	555	744	633	244	301
<b>Total .. ..</b>	<b>71,717</b>	<b>71,671</b>	<b>84,381</b>	<b>101,785</b>	<b>85,160</b>

(iii) *Excise Revenue.* Net excise receipts for the years 1957-58 to 1961-62 were as follows.

**COMMONWEALTH EXCISE REVENUE: CLASSIFICATION OF NET RECEIPTS**

(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Beer .. ..	105,997	105,286	109,724	111,740	113,504
Spirits .. ..	8,047	8,692	8,683	8,586	8,418
Tobacco .. ..	16,633	15,207	14,366	13,389	11,898
Cigars and cigarettes .. ..	51,366	55,824	61,459	64,969	67,488
Cigarette papers .. ..	862	811	770	716	640
Petrol .. ..	41,711	44,253	49,255	51,952	57,904
Diesel fuel .. ..	2,770	1,475	2,179	2,282	2,257
Matches .. ..	1,084	1,092	1,125	1,105	1,095
Playing cards .. ..	47	578	52	50	53
Coal .. ..	590	48	418	389	290
Cathode ray tubes .. ..	1,268	2,040	2,850	1,961	2,056
Miscellaneous .. ..	959	948	1,230	270	42
<b>Total .. ..</b>	<b>231,334</b>	<b>236,254</b>	<b>252,111</b>	<b>257,409</b>	<b>265,645</b>

(iv) *Other Taxation.* (a) *General.* Taxes other than customs and excise and the various export charges are, in general, assessed and collected by the Commissioner of Taxation. The organization comprises a Head Office in Canberra, an office in each State assessing the returns of taxpayers whose interests are restricted to that State, and a Central Office situated in Melbourne assessing taxpayers whose interests are in more than one State.

For detailed statistics relating to Commonwealth income taxes, estate duty, gift duty and sales tax, see the annual bulletin *Finance, Part II.—Commonwealth Taxation*, issued by this Bureau.

(b) *Sales Tax.* The sales tax was first imposed in August, 1930. The operation of the tax is controlled chiefly by a system of registration of taxpayers whereby all manufacturers and wholesale merchants, who are the taxpayers under the Act in respect of goods sold in Australia, must be registered with the Department. The tax on imports subject to sales tax is collected by the Customs Department at ports of entry.

Since the inception of the tax, certain exemptions have been allowed. These exemptions, which have been extended from time to time, relate mainly to goods of an essential nature or those for use in primary production. The most recent exemptions were those granted from 15th August, 1961.

A general rate of tax is levied on all goods other than those specified in the schedules to the *Sales Tax (Exemptions and Classifications) Act 1935-1962*. These schedules set out details of goods exempt from sales tax and those subject to special rates. The general and special rates which operated from 7th August, 1952, were:—

Period	General rate	Special rates
7th August, 1952, to 9th September, 1953 ..	12½ per cent. ..	20, 33½ and 50 per cent.
10th September, 1953, to 18th August, 1954 ..	12½ per cent. ..	16½ per cent.
19th August, 1954, to 14th March, 1956 ..	12½ per cent. ..	10 and 16½ per cent.
15th March, 1956, to 3rd September, 1957 ..	12½ per cent. ..	10, 16½, 25 and 30 per cent.
4th September, 1957, to 15th November, 1960 ..	12½ per cent. ..	8½, 16½, 25 and 30 per cent.
16th November, 1960, to 21st February, 1961 ..	12½ per cent. ..	8½, 16½, 25 and 40 per cent.
22nd February, 1961, to 15th August, 1961 ..	12½ per cent. ..	8½, 16½, 25 and 30 per cent.
16th August, 1961, to 6th February, 1962 ..	12½ per cent. ..	2½, 16½, 25 and 30 per cent.
From 7th February, 1962 .. ..	12½ per cent. ..	2½, 22½ and 25 per cent.

Particulars of the net amount of sales tax payable and the sales of taxable and exempt goods in each State for 1961-62 are given in the following table. The figures relate to sales during the period 1st July to 30th June. The figures for sales tax payable differ from those for net collections shown on page 915 because the latter include some adjustments in respect of earlier tax years and include only tax payable on returns lodged during the year, which in general cover sales for the period June to May.

## SALES TAX AND AMOUNT OF SALES, 1961-62

(£'000)

Particulars	N.S.W. (a)	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N. Terr.	Australia
Net sales on which sales tax was payable at—								
2½ per cent. ..	75,300	65,404	19,844	15,587	10,816	3,823	29	190,803
8½ per cent. ..	8,880	6,819	2,512	1,849	1,194	434	4	21,692
12½ per cent. ..	216,274	150,153	63,503	44,254	30,367	10,871	519	515,941
16½ per cent. ..	22,768	19,371	8,937	6,426	5,877	851	39	64,269
22½ per cent. ..	28,062	23,298	9,060	6,601	5,800	1,214	..	74,035
25 per cent. ..	45,164	28,300	9,315	6,543	4,549	2,190	29	96,090
30 per cent. ..	33,682	27,148	10,741	7,748	6,621	1,071	..	87,011
Total ..	430,130	320,493	123,912	89,008	65,224	20,454	620	1,049,841
Sales of exempt goods by registered persons..	947,476	702,853	335,915	200,665	161,630	62,940	4,417	2,415,896
Total sales of Taxable and Exempt Goods ..	1,377,606	1,023,346	459,827	289,673	226,854	83,394	5,037	3,465,737
Sales tax payable ..	61,161	44,662	17,722	12,592	9,574	2,774	80	148,565

(a) Includes Australian Capital Territory.



Sales of taxable and exempt goods and sales tax payable for Australia as a whole are shown in the following table for the years 1957-58 to 1961-62.

### SALES TAX AND AMOUNT OF SALES

(£'000)

Year					Net sales on which sales tax was payable	Sales of exempt goods by registered persons	Total sales of taxable and exempt goods	Sales tax payable
1957-58	..	..	..	..	849,347	2,105,688	2,955,035	138,259
1958-59	..	..	..	..	890,293	2,152,026	3,042,319	143,296
1959-60	..	..	..	..	1,020,033	2,354,204	3,374,237	167,839
1960-61	..	..	..	..	1,040,552	2,447,126	3,487,678	171,584
1961-62	..	..	..	..	1,049,841	2,415,896	3,465,737	148,565

In the foregoing tables, sales include goods transferred to stock for sale by retail, goods imported by persons other than registered taxpayers, and goods used in the business of the taxpayer. Exempt sales relate to goods exempted from sales tax under the *Sales Tax (Exemptions and Classifications) Act 1935-1962*. The figures shown do not represent the total sales of all commodities, as vendors trading only in exempt goods are not required to be registered, and consequently the volume of their sales is not included in the statistics above. In addition, non-taxable sales (i.e., goods sold by one registered taxpayer to another registered taxpayer) are excluded.

(c) *Land Tax*. Commonwealth Land Tax was levied annually from 1910-11 to 1951-52 on the unimproved value of land. It was abolished from 1st July, 1952.

(d) *Pay-roll Tax*. The *Pay-roll Tax Act 1941* and the *Pay-roll Tax Assessment Act 1941-1942* imposed a pay-roll tax of 2½ per cent. on all wages and salaries in excess of £20 a week paid by an employer after 30th June, 1941. Employers who are liable for tax are required to register and to furnish a monthly return of all wages paid. These measures formed part of the Commonwealth scheme of child endowment, the revenue from the tax being designed to provide part of the money required. However, the collections now form part of the general revenues of the Commonwealth. For particulars of the present method of financing the National Welfare Fund, out of which Child Endowment is paid, see para. 5, page 926. The exemption was increased to £80 a week (£4,160 per annum) from 1st October, 1953, to £120 a week (£6,240 per annum) from 1st September, 1954, and to £200 a week (£10,400 per annum) from 1st September, 1957. Employers whose export sales have increased above the annual average of export sales effected during a base period of two years ended 30th June, 1960, are entitled under the Commonwealth Government's export incentive scheme to a rebate of pay-roll tax of twelve and one half times the percentage increase in export sales.

(e) *Income Taxes*. Details of taxes on income are given in the division, Taxes on Income, at the end of this chapter.

(f) *Wool Sales Deduction*. The Wool Sales Deduction scheme operated from 2nd December, 1950, until 17th November, 1951. For particulars, see Official Year Book No. 46, page 819.

(g) *Estate Duty*. Commonwealth Estate Duty was first levied in 1914. Particulars of exemptions allowed and the rates imposed prior to November, 1957, are given in earlier issues of the Year Book (see No. 43, p. 758).

Under the *Estate Duty Assessment Act 1914-1957*, Estate Duty is assessed on the net value of the estate less a statutory exemption determined in accordance with the following formula:—(a) where the whole of the estate passes to the widow, children (including adopted children, step-children and ex-nuptial children), or grand-children of the deceased, the sum of £5,000 decreasing by £1 for every £3 by which the value exceeds £5,000 and ceasing to apply at £20,000; (b) where no part of the estate passes to the widow, children or grand-children, the sum of £2,500 decreasing by £1 for every £3 by which the value exceeds £2,500 and ceasing to apply at £10,000; and (c) where only part of the estate passes to the widow, children or grand-children, the statutory exemption is to be calculated proportionately under (a) and (b).

An amendment to this Act, assented to on 20th November, 1957, provided for rebates of duty on estates which become liable for duty on two or more occasions within a period of five years.

The rates of duty levied under the *Estate Duty Act 1914-1941* increase as the value of the estate increases, as follows:—£1 to £10,000, 3 per cent.; £10,001 to £20,000, 3 per cent. to 6 per cent.; £20,001 to £120,000, 6 per cent. to 26 per cent.; £120,001 to £500,000, 26 per cent. to 27.9 per cent.; over £500,000, 27.9 per cent.

Particulars of the number and value of estates and duty assessed, for each of the assessment years 1956-57 to 1960-61, are given in the following table.

#### ESTATE DUTY ASSESSMENTS

Particulars	1956-57	1957-58	1958-59	1959-60	1960-61
Number of estates .. ..	12,784	13,599	11,794	13,978	14,196
Gross value assessed .. .. £'000	213,253	227,310	202,899	233,560	244,976
Deductions .. .. £'000	37,376	39,707	35,589	40,453	45,683
Statutory exemption .. .. £'000	28,661	30,492	26,555	31,597	33,051
Dutiable value .. .. £'000	147,216	157,111	140,755	161,510	166,241
Duty payable .. .. £'000	13,580	13,967	13,013	14,116	15,589
Average dutiable value .. .. £	11,516	11,553	11,934	11,555	11,710
Average duty per estate .. .. £	1,062	1,027	1,103	1,010	1,098

(h) *Gift Duty*. The *Gift Duty Act 1941-1947* and the *Gift Duty Assessment Act 1941-1957* impose a gift duty on all gifts made after the 29th October, 1941. A gift has been defined as any disposition of property which is made otherwise than by will without adequate consideration in money or money's worth. There is a liability on both the donor and the donee to furnish a return, and both are jointly and severally liable for payment of the duty.

The following rates of duty are levied under the *Gift Duty Act 1941-1947* and relate to the value of all gifts made by the donor within a period of eighteen months:—not exceeding £2,000, nil; £2,001 to £10,000, 3 per cent.; £10,001 to £20,000, 3 per cent. to 6 per cent.; £20,001 to £120,000, 6 per cent. to 26 per cent.; £120,001 to £500,000, 26 per cent. to 27.9 per cent.; £500,001 and over, 27.9 per cent.

An amendment which operated from 3rd June, 1947, provides that gift duty shall not exceed one-half of the amount by which the value of the gift exceeds £2,000.

(i) *Entertainments Tax*. The Commonwealth levied an Entertainments Tax from 1st October, 1942, to 30th September, 1953. Details of rates are given in earlier issues of the Official Year Book (see No. 40, pp. 672 and 673).

(j) *Wool Levy*. The *Wool Tax Act 1936* and *Wool Tax Assessment Act 1936* provided for a levy on all wool grown in Australia and shorn on or after 1st July, 1936. Details of this levy are given in earlier issues of the Official Year Book. This levy was suspended from 1st July, 1946, until 30th June, 1952, while the Wool Contributory Charge was imposed.

With the repeal of the Wool Contributory Charge, however, a levy on wool produced in Australia was re-introduced from 1st July, 1952. The *Wool Tax Acts (Nos. 1 and 2)* of 1952 provided for the payment of a levy of four shillings a bale until 30th June, 1953, after which date the rate of tax could be varied within prescribed limits. There was no variation until 1st July, 1957, when the rate was increased to six shillings a bale. The purpose of the tax is to provide funds for publicity and research previously provided by the Wool Contributory Charge. Collections during 1957-58, 1958-59, 1959-60, 1960-61 and 1961-62 were £1,328,000, £1,389,000, £1,542,000, £1,655,000 and £2,854,000 respectively.

(k) *Wool Contributory Charge*. The *Wool (Contributory Charge) Act 1945* and the *Wool (Contributory Charge) Assessment Act 1945* imposed a charge on all wool produced in Australia and sold, manufactured or exported. Wool sold by the Australian Wool Realization Commission was not liable to the charge. Details of the rate of the charge and collections made were given in earlier issues of the Official Year Book (see No. 40, p. 675).

The various *Wool (Contributory Charge) Acts* were repealed by the *Wool Tax Assessment Act 1952* and the charge superseded by the wool levy.

(l) *Wheat Export Charge and Wheat Tax*. A summary of the provisions of the *Wheat Export Charge Acts 1946, 1948, 1952 and 1954* is contained in previous issues of the Official Year Book (see No. 40, p. 676, No. 41, p. 604 and No. 46, p. 820).

The *Wheat Export Charge Act 1958* repealed the *Wheat Export Charge Act 1954* and provided for an export charge on wheat and wheat products for the seasons 1958-59 to 1963-64 inclusive. The charge levied is the excess of the export price over the cost of production or 1s. 6d. per bushel whichever is the less. Under the *Wheat Industry Stabilization Act 1958*, to which the Wheat Export Charge is complementary, the Commonwealth Government guarantees a return to wheat-growers of the ascertained cost of production of up to 100 million bushels of wheat harvested each season exported from Australia. Collections from the wheat export charge are paid into the Wheat Prices Stabilization Fund, out of which payments will be made to the Australian Wheat Board, when required, for the purpose of building up the average export price for any season to the guaranteed price. If the fund is exhausted, additional payments will be made from the Consolidated Revenue Fund.

Collections of the wheat export charge amounted to £443,000 in 1957-58, £1,211,000 in 1958-59 and £1,000 in 1959-60, and were nil in 1960-61 and 1961-62.

The *Wheat Tax Act 1957* imposed a tax of ¼d. for each bushel of wheat—

- (a) which has been delivered to the Wheat Board on or after the first day of October, 1956, and before the date of commencement of the Act; or
- (b) which is delivered to the Wheat Board on or after that date.

The Act also provided that where, before the commencement of the Act, a person delivering to the Board wheat upon which tax is imposed by the Act authorized the Board to deduct an amount from the moneys payable to him and to pay the amounts so deducted to a person, authority or association for the purposes of soil fertility research or other research likely to benefit the wheat industry, and the Board did so, the tax otherwise payable upon that wheat is to be reduced by the amount so deducted.

The *Wheat Research Act 1957* provided for the establishment of a Wheat Research Trust Account to receive moneys payable under the *Wheat Act 1957*, and for the setting up of a Wheat Industry Research Council to direct the expenditure of moneys from that Trust Account for research, etc., to benefit the wheat industry.

Collections of Wheat Tax amounted to £185,000 in 1957-58, £207,000 in 1958-59, £187,000 in 1959-60, £261,000 in 1960-61 and £234,000 in 1961-62, and were paid to the Wheat Research Trust Account.

(m) *Miscellaneous Export Charges.* These consist of charges levied on exports of apples and pears (*Apple and Pear Export Charges Act 1938-1960*), canned fruits (*Canned Fruits Export Charges Act 1926-1959*), dairy produce (*Dairy Produce Export Charges Act 1924-1937*), dried fruits (*Dried Fruits Export Charges Act 1924-1929*), eggs (*Egg Export Charges Act 1947*) and meat (*Meat Export Charges Act 1935-1954*), and on grapes used in the manufacture of wine (*Wine Grapes Charges Act 1929-1954*). The collections are paid into special funds to be applied, for the purposes of Export Boards established under various Acts, in controlling the quantity and quality of produce exported.

Collections for the last five years were as follows:—1957-58, £390,000; 1958-59, £566,000; 1959-60, £540,000; 1960-61, £529,000; and 1961-62, £617,000.

(n) *Stevedoring Industry Charge.* The *Stevedoring Industry Charge Act 1947* and the *Stevedoring Industry Charge Assessment Act 1947* imposed a charge of 4½d. a man-hour on the employer of a waterside worker after 22nd December, 1947.

The amounts received are paid to the Stevedoring Industry Board for the payment of attendance money to waterside workers and for other expenses of the Board.

Since 1947, the charge has been amended as follows:—11th October, 1949, a reduction to 2½d. a man-hour; 11th December, 1951, an increase to 4d. a man-hour; 28th October, 1952, an increase to 11d. a man-hour; 4th May, 1954, a reduction to 6d. a man-hour; 30th October, 1956, an increase to 1s. 7d. a man-hour; and from 21st May, 1957, an increase to 2s. a man-hour.

A further amendment under the *Stevedoring Industry Charge Act 1958* which came into operation on 1st April, 1958, provided for an increase of the charge to 3s. a man-hour until 1st July, 1959, and a reduction to 2s. 6d. a man-hour on or after 1st July, 1959.

Collections during the years 1957-58 to 1961-62 were as follows:—1957-58, £3,337,000; 1958-59, £4,572,000; 1959-60, £3,717,000; 1960-61, £3,844,000; and 1961-62, £3,433,000.

(o) *Tobacco Industry Charge.* The *Tobacco Charge Acts* (Nos. 1, 2 and 3) 1955 and the *Tobacco Charges Assessment Act 1955*, which came into operation on 1st January, 1956, provided for charges on tobacco leaf grown in Australia.

The *Tobacco Charge Act* (No. 1) 1955 imposed a maximum charge of ½d. a pound on all Australian tobacco leaf sold to a manufacturer.

The *Tobacco Charge Act* (No. 2) 1955 imposed a charge at twice the rate to be levied under the *Tobacco Charge Act* (No. 1) on all Australian tobacco leaf purchased by a manufacturer.

The *Tobacco Charge Act* (No. 3) 1955 imposed a charge on all Australian tobacco leaf grown by a manufacturer and appropriated by him for manufacturing purposes. Where the manufacturer grew, in Australia, not less than nine-tenths of the tobacco leaf used by him in manufacturing, the charge was at the rate imposed by the *Tobacco Charge Act* (No. 1). In other cases, the charge was at twice that rate.

The charges collected under the *Tobacco Charges Assessment Act 1955* were paid into the Tobacco Industry Trust Account which was established by the *Tobacco Industry Act 1955*. Moneys in this account are used for the promotion of the tobacco industry.

Collections in 1957-58, 1958-59, 1959-60, 1960-61 and 1961-62 amounted to £61,000, £72,000, £112,000, £136,000 and £164,000 respectively.

(p) *Dairy Produce Levy.* The *Dairy Produce Levy Act 1958* imposed a levy on the manufacture of butter and cheese for the purpose of financing a research and sales promotion scheme for the dairy industry. The maximum rates of the levy are fixed at three-sixteenths of a penny a pound on butter and three-thirty-seconds of a penny on cheese. In 1958-59, 1959-60, 1960-61 and 1961-62, collections amounted to £151,000, £334,000, £350,000 and £390,000.

(q) *Canning Fruit Charge.* The *Canning Fruit Charge Act* 1959 imposed a levy on apricots, peaches and pears accepted by canneries as of canning quality or for use in the production of canned fruit, for the purpose of promoting the sale of Australian canned fruits both overseas and in Australia. The rate of the charge was ten shillings per ton of fruit delivered to canneries or such lesser rate as may be prescribed from time to time. In 1959-60, 1960-61 and 1961-62, collections amounted to £35,000, £30,000 and £45,000 respectively.

(r) *Cattle Slaughter Levy.* The *Cattle Slaughter Levy Act* 1960 imposed a levy upon the slaughter of cattle for human consumption at rates to be prescribed from time to time but not exceeding two shillings per head of cattle slaughtered. The proceeds of this levy may be expended on purposes associated with scientific, economic, or technical research related to the raising of cattle or the production or distribution of beef and other products of the slaughter of cattle. In 1960-61 and 1961-62, collections amounted to £84,000 and £210,000.

3. *Business Undertakings.*—(i) *Postmaster-General's Department.* Particulars of net receipts for each of the financial years 1957-58 to 1961-62 are given in the following table.

**POSTMASTER-GENERAL'S DEPARTMENT: NET RECEIPTS**  
(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62 (a)
Telegraph .. .. .	6,169	6,321	6,804	7,275	7,448
Telephone .. .. .	55,344	59,717	71,209	81,114	85,166
Postal .. .. .	32,518	34,379	40,531	44,211	47,104
Miscellaneous .. .. .	2,745	3,050	3,087	3,565	96
<b>Total .. .. .</b>	<b>96,776</b>	<b>103,467</b>	<b>121,631</b>	<b>136,165</b>	<b>139,814</b>

(a) Owing to changes in accounting practices, exact comparisons cannot be made with previous years.

Further particulars of the Postmaster-General's Department's receipts to 1961-62 are given in Chapter XIV. Transport and Communication, of this Year Book (see p. 621).

(ii) *Broadcasting and Television Services.* Following the amendment of the *Australian Broadcasting Act* 1942-1946 by Act No. 64 of 1948, the Australian Broadcasting Control Board was set up on 15th March, 1949. (See also Chapter XIV. Transport and Communication, pp. 630-8).

Details of net receipts for the years 1957-58 to 1961-62 are shown in the following table.

**BROADCASTING AND TELEVISION SERVICES: NET RECEIPTS**  
(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Listeners' licence fees .. .. .	5,371	5,693	5,656	5,536	5,413
Broadcasting station licence fees .. .. .	80	85	88	104	97
Television viewers' licence fees .. .. .	1,389	2,777	4,624	5,781	6,626
Television station licence fees .. .. .	7	19	38	65	91
Miscellaneous .. .. .	29	44	54	67	126
<b>Total .. .. .</b>	<b>6,876</b>	<b>8,618</b>	<b>10,460</b>	<b>11,553</b>	<b>12,353</b>

(iii) *Commonwealth Railways.* The Commonwealth Government is responsible for four railways—the Trans-Australian, the Central Australia, the North Australia and the Australian Capital Territory. The following table shows the amounts paid to the credit of the Consolidated Revenue Fund on account of each of these railways for the years 1957-58 to 1961-62.

COMMONWEALTH RAILWAYS REVENUE  
(£'000)

Railway	1957-58	1958-59	1959-60	1960-61	1961-62
Trans-Australian .. ..	2,821	2,927	3,249	4,091	4,187
Central Australia .. ..	1,554	1,635	1,601	1,867	1,821
North Australia .. ..	182	203	272	149	155
Australian Capital Territory .. ..	19	46	25	42	59
<b>Total .. ..</b>	<b>4,576</b>	<b>4,811</b>	<b>5,147</b>	<b>6,149</b>	<b>6,222</b>

Further particulars to 1961-62 are given in Chapter XIV. Transport and Communication (see pp. 591-2 and 594-5).

4. **Other Sources of Revenue.**—Revenue derived by the Consolidated Revenue Fund from the Territories of the Commonwealth during 1961-62 amounted to £5,996,000 (Australian Capital Territory £3,993,000; Northern Territory £2,001,000; Cocos (Keeling) Islands £2,000). Of other sources of revenue, amounting to £60,633,000, the following are noteworthy:—interest £17,069,000; defence £4,806,000; net profit on Australian note issue £15,751,000.

For details of the revenue of the Territories see Chapter V. of this Year Book.

## EXPENDITURE

1. **Details of Expenditure from Consolidated Revenue.**—The following table shows details of expenditure from the Consolidated Revenue Fund during the years 1957-58 to 1961-62.

COMMONWEALTH CONSOLIDATED REVENUE FUND: EXPENDITURE  
(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
<b>Debt charges(a)—</b>					
Interest (including exchange on overseas interest) .. ..	51,919	47,701	46,617	43,489	43,039
Debt redemption .. ..	14,272	14,204	19,190	23,104	25,109
Other(b) .. ..	353	706	401	1,002	588
<b>Total .. ..</b>	<b>66,544</b>	<b>62,611</b>	<b>66,208</b>	<b>67,595</b>	<b>68,736</b>
<b>Defence services .. ..</b>	<b>143,148</b>	<b>107,868</b>	<b>138,112</b>	<b>151,333</b>	<b>133,500</b>
War and repatriation services .. ..	75,832	78,770	86,579	97,947	104,280
Subsidies and bounties .. ..	18,508	21,570	20,198	22,561	34,221
National Welfare Fund(c) .. ..	242,990	273,460	295,064	326,447	360,877
<b>Loan Consolidation and Investment Reserve</b>					
Trust Account .. ..	104,378	27,947	41,382	142,561	22,155
<b>Business undertakings—</b>					
Postmaster-General .. ..	93,116	96,681	107,777	110,136	114,772
Broadcasting and television services .. ..	7,334	8,371	9,983	11,372	12,800
Railways .. ..	3,673	3,725	4,088	4,616	5,222
Territories .. ..	18,914	20,240	23,559	26,839	30,328
<b>Works and services—</b>					
Defence .. ..	43,147	45,198	44,723	49,325	48,112
Repatriation .. ..	35,206	35,308	35,242	35,386	35,460
Postmaster-General .. ..	34,811	36,353	39,937	42,145	46,939
Broadcasting services .. ..	1,583	1,408	3,551	1,429	2,847
Railways .. ..	2,545	1,281	1,091	1,248	1,697
Territories .. ..	11,749	14,906	16,901	18,229	20,764
Other .. ..	36,548	41,211	41,615	37,698	49,885
<b>Payments to or for States</b>	<b>276,404</b>	<b>293,414</b>	<b>330,542</b>	<b>363,191</b>	<b>406,030</b>
<b>Primary production—research sales promotion, etc. .. ..</b>	<b>9,731</b>	<b>3,451</b>	<b>3,839</b>	<b>4,053</b>	<b>5,895</b>
<b>Other expenditure .. ..</b>	<b>97,610</b>	<b>122,277</b>	<b>127,895</b>	<b>124,168</b>	<b>137,022</b>
<b>Grand Total .. ..</b>	<b>1,323,771</b>	<b>1,296,050</b>	<b>1,438,286</b>	<b>1,638,279</b>	<b>1,641,542</b>
<b>Per head of population .. ..</b>	<b>£ s. d.</b>	<b>£ s. d.</b>	<b>£ s. d.</b>	<b>£ s. d.</b>	<b>£ s. d.</b>
	135 17 7	130 5 7	141 10 2	157 13 4	154 15 6

(a) Excludes payments to or for the States under the Financial Agreement (see pp. 932-3).  
 (b) Redemption, conversion and loan management, etc., expenses. (c) Excludes Tuberculosis Benefits—maintenance grants, included in Payments to or for the States—1957-58, £4,495,000; 1958-59, £4,767,000; 1959-60, £4,299,000; 1960-61, £4,157,000; 1961-62, £4,314,000.

Further details of the expenditure in each section are given in paragraphs 2 to 12 following.

2. **Defence Services.**—Details of the expenditure on defence services, including works and services, but excluding debt charges, etc., by the Departments of Defence, Navy, Army, Air and Supply are shown in the following table. This table covers expenditure by the service and associated departments only, and includes the cost of maintaining forces in oversea posts.

The figures represent the combined expenditures from Consolidated Revenue and Loan Funds for the years 1957–58 to 1961–62. In earlier issues of this Year Book, this table covered expenditure from Trust Funds also, but there has been no expenditure from this source on defence services in recent years.

**DEFENCE SERVICES(a): COMMONWEALTH EXPENDITURE FROM REVENUE AND LOAN FUNDS**  
(£'000)

Particulars	1957–58	1958–59	1959–60	1960–61	1961–62
Department of Defence .. .. .	931	1,008	1,231	1,303	1,660
Department of the Navy—					
Naval Forces—pay, maintenance, etc. . . .	30,447	30,782	32,175	31,737	32,784
Naval construction and additions to the fleet .. . . .	5,825	5,220	5,557	7,898	6,469
Ships, aircraft and aircraft engines .. . .	4,090	2,576	1,937	2,151	5,078
Buildings, works, etc. . . . .	1,603	1,548	1,165	1,745	1,721
Advances to States under Commonwealth-State Housing Agreement .. . . .	290	254	274	311	236
Administrative and miscellaneous expenditure .. . . .	1,159	1,296	1,420	1,693	1,851
<i>Total, Navy .. .. .</i>	<i>43,414</i>	<i>41,676</i>	<i>42,528</i>	<i>45,535</i>	<i>48,139</i>
Department of the Army—					
Military Forces—pay, maintenance, etc. . .	38,496	41,184	44,210	42,162	43,023
Arms, armament, ammunition .. . . .	13,891	18,939	15,924	17,333	16,846
Buildings, works, etc. . . . .	3,343	3,498	3,142	3,350	2,631
Advances to States under Commonwealth-State Housing Agreement .. . . .	498	456	394	568	427
Administrative and miscellaneous expenditure .. . . .	2,443	2,645	2,676	3,296	3,159
<i>Total, Army .. .. .</i>	<i>58,671</i>	<i>66,722</i>	<i>66,346</i>	<i>66,709</i>	<i>66,086</i>
Department of Air—					
Air Force—pay, maintenance, etc. .. . .	27,736	27,038	29,711	31,662	32,795
Aircraft, equipment and stores .. . . .	22,629	25,874	26,011	25,064	26,091
Buildings, works, etc. . . . .	2,869	4,147	3,650	3,833	3,266
Advances to States under Commonwealth-State Housing Agreement .. . . .	387	485	393	551	679
Administrative and miscellaneous expenditure .. . . .	2,096	2,296	2,472	3,137	3,228
<i>Total, Air .. .. .</i>	<i>55,717</i>	<i>59,840</i>	<i>62,237</i>	<i>64,247</i>	<i>66,059</i>
Department of Supply—					
Weapons Research Establishment .. . . .	10,509	9,500	9,500	9,490	9,510
Defence research and development .. . .		1,311	1,321	1,383	1,520
Buildings, works, etc. . . . .	6,653	1,157	1,083	1,240	1,215
Administrative and miscellaneous expenditure .. . . .	9,377	8,026	8,879	8,860	9,373
<i>Total, Supply .. .. .</i>	<i>26,539</i>	<i>19,994</i>	<i>20,783</i>	<i>20,973</i>	<i>21,618</i>
Economic assistance to support defence programme of S.E.A.T.O. member countries .. .	165	298	684	776	577
Administration of National Service Act .. .	186	159	93	..	..
Civil defence .. . . .	95	102	105	112	222
Recruiting campaign .. . . .	327	311	302	474	481
Other .. . . .	250	262	496	520	385
Source—					
Consolidated Revenue Fund .. . . .	186,295	153,066	182,835	200,658	181,612
Loan Fund .. . . .	..	37,306	11,970	—9	23,615
<i>Grand Total .. .. .</i>	<i>186,295</i>	<i>190,372</i>	<i>194,805</i>	<i>200,649</i>	<i>205,227</i>

(a) Excludes expenditure on debt charges, audit charges, pension and superannuation payments and Defence Division of the Department of the Treasury.

3. War and Repatriation Services.—Expenditure from Consolidated Revenue and Loan Fund for war and repatriation services (excluding debt charges) in relation to both the 1914–18 and 1939–45 Wars is shown in the following table for the years 1957–58 to 1961–62. Expenditure on the maintenance of forces in oversea posts and the cost of arms and equipment is included in Defence Services.

**WAR AND REPATRIATION SERVICES: COMMONWEALTH EXPENDITURE  
FROM CONSOLIDATED REVENUE AND LOAN FUNDS**

(£'000)

Particulars	1957–58	1958–59	1959–60	1960–61	1961–62
War gratuities .. .. .	16	8	9	10	13
War and service pensions and widows' allowances .. .. .	59,027	60,770	65,823	73,673	77,270
Commonwealth Reconstruction Training Scheme .. .. .	340	365	297	212	154
War service land settlement .. .. .	10,302	7,520	8,458	3,670	3,549
Re-establishment loans for agricultural purposes .. .. .	65	63	58	37	39
Repatriation Department—					
Repatriation benefits .. .. .	11,275	12,456	13,908	15,646	17,283
Other benefits .. .. .	593	608	646	730	824
Administration and general expenses .. .. .	2,910	3,009	3,581	3,846	4,888
<i>Total, Repatriation Department ..</i>	<i>14,778</i>	<i>16,073</i>	<i>18,135</i>	<i>20,222</i>	<i>22,995</i>
War service homes—salaries and general expenses .. .. .	938	978	1,127	1,105	1,170
Other departments—miscellaneous expenditure .. .. .	409	368	392	432	538
Other administrations—recoverable expenditure(a) .. .. .	–1,340	–1,675	–782	613	129
Capital works and services—					
Repatriation Department .. .. .	206	308	242	386	460
War Service Homes Act 1918–1949 .. .. .	35,000	35,000	35,000	35,000	35,000
<i>Total, Capital Works and Services ..</i>	<i>35,206</i>	<i>35,308</i>	<i>35,242</i>	<i>35,386</i>	<i>35,460</i>
Total, War and Repatriation Services—					
Consolidated Revenue Fund .. .. .	111,038	114,078	121,821	133,333	139,740
Loan Fund .. .. .	8,703	5,700	6,938	2,027	1,577
<b>Grand Total .. .. .</b>	<b>119,741</b>	<b>119,778</b>	<b>128,759</b>	<b>135,360</b>	<b>141,317</b>

(a) Munitions stores, etc., supplied to the British Government and other administrations. Includes repayments and waiver of war-time indebtedness of other administrations.

NOTE.—Minus sign (–) indicates excess of credits or repayments over expenditure.

4. Subsidies and Bounties.—The following table shows details of Commonwealth expenditure from revenue on subsidies, bounties and assistance to primary producers for the years 1957–58 to 1961–62. Expenditure on special relief such as drought, frost, flood and bush fire, etc., is not included here (included under items in table, para. 12), nor is expenditure from the proceeds of certain taxes on primary products and profits from marketing schemes, which have been paid to trust funds for the purpose of price or other stabilization schemes or for distribution to producers (see paragraph 11, p. 936). Payments to the States for Cattle Tick Control, Dairy Industry Extension and Agricultural Advisory Services are also not included under this heading, but under the heading Payments to or for the States (see para. 10, p. 931).

Further information relating to assistance to primary producers is given in Chapter XXII, Rural Industry. Details of price stabilization subsidies and of various forms of assistance to primary producers for earlier years may be found on pages 414 and 1014–15, respectively, of Official Year Book No. 38.



**SUBSIDIES AND BOUNTIES: COMMONWEALTH EXPENDITURE**  
(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Dairy industry(a) .. ..	13,500	13,500	13,500	13,500	13,500
Wheat prices stabilization .. ..	448	1,211	2	..	11,906
Assistance to gold-mining industry .. ..	660	898	838	699	659
Coastal shipping service—					
Tasmania .. ..	178	202	49	..	13
Papua and New Guinea .. ..	100	100	100	100	112
Pyrites .. ..	..	..	..	86	397
Rayon yarn .. ..	87	69	72	72	69
Flax fibre .. ..	62	93	83	5	12
Cotton bounty .. ..	65	140	214	374	315
Oil search .. ..	264	463	360	1,399	2,543
Air services .. ..	(b)	500	500	500	500
Ship construction .. ..	1,858	1,800	1,842	3,000	1,553
Tractor .. ..	467	415	621	941	877
Sulphuric acid .. ..	709	1,301	1,481	1,353	1,009
Cellulose acetate flake .. ..	110	110	128	127	69
Copper .. ..	..	768	408	405	687
<b>Total .. ..</b>	<b>18,508</b>	<b>21,570</b>	<b>20,198</b>	<b>22,561</b>	<b>34,221</b>

(a) Dairy products.

(b) Separate details not available.

5. **National Welfare Fund.**—The National Welfare Fund was established for the purpose of providing a fund for the payment of Commonwealth social services benefits. During the year 1949-50, an amount equivalent to the total collections of pay-roll tax and social services contribution was paid to the fund from Consolidated Revenue. During 1950-51, the social services contribution was amalgamated with the normal income tax, and it became necessary to base the contribution on another formula. For the year 1950-51, the amount paid to the fund was the total of collections of pay-roll tax and social services contribution plus £30,000,000. In 1951-52, the amount paid to the fund was the amount paid in 1950-51 increased in the same proportion as collections of pay-roll tax increased over the collections of pay-roll tax in 1950-51. By an amendment to the *National Welfare Fund Act 1943-1950*, the amount to be paid to the fund in 1952-53 and subsequent years was changed to the amount of moneys paid out of the fund. In addition to these payments from Consolidated Revenue, the fund received interest from investments.

In the following table, details are given of the income and expenditure of the National Welfare Fund and the balance in the fund at the end of each year for the years 1957-58 to 1961-62. For a detailed account of the establishment of the National Welfare Fund, the services provided and the numbers and amounts of benefits paid, see Chapter XV. Welfare Services.

**NATIONAL WELFARE FUND: RECEIPTS, EXPENDITURE AND BALANCES**  
(£'000)

Year	Income			Expenditure (a)	Balance in fund at end of year
	Contribution from Consolidated Revenue (a)	Interest on invest- ments	Total (a)		
1957-58 .. ..	247,485	1,958	249,443	247,485	197,020
1958-59 .. ..	278,227	1,977	280,204	278,227	198,997
1959-60 .. ..	299,363	2,002	301,365	299,363	200,999
1960-61 .. ..	330,604	2,017	332,621	330,604	203,016
1961-62 .. ..	365,191	2,037	367,228	365,191	205,053

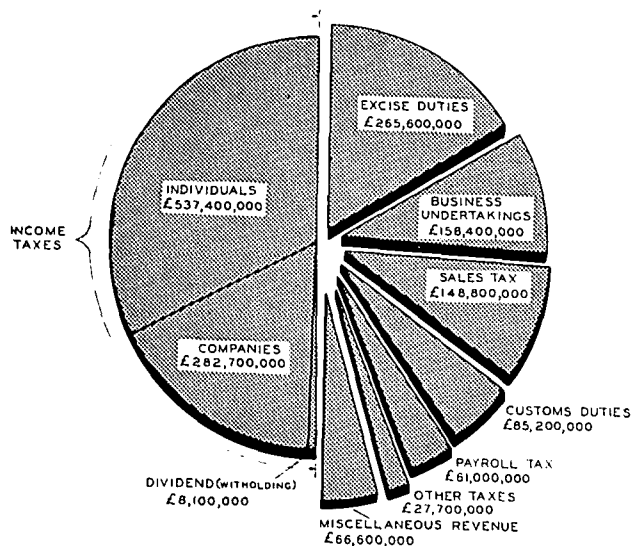
(a) Includes Tuberculosis Benefits maintenance grants elsewhere included in Payments to or for the States—1957-58, £4,495,000; 1958-59, £4,767,000; 1959-60, £4,299,000; 1960-61, £4,157,000; 1961-62, £4,314,000.

6. **Loan Consolidation and Investment Reserve Trust Account.**—The *Loan Consolidation and Investment Reserve Act 1955* established the Loan Consolidation and Investment Reserve Trust Account for the purpose of repurchase or redemption of securities representing portion of the public debt of the Commonwealth.

Payments from the Consolidated Revenue Fund were made as follows:—1957-58, £104,378,000; 1958-59, £27,947,000; 1959-60, £41,382,000; 1960-61, £142,561,000; and 1961-62, £22,155,000. Expenditure from the Trust Account on repurchase of securities was £132,767,000 in 1957-58; £100,046,000 in 1958-59; £79,885,000 in 1959-60;

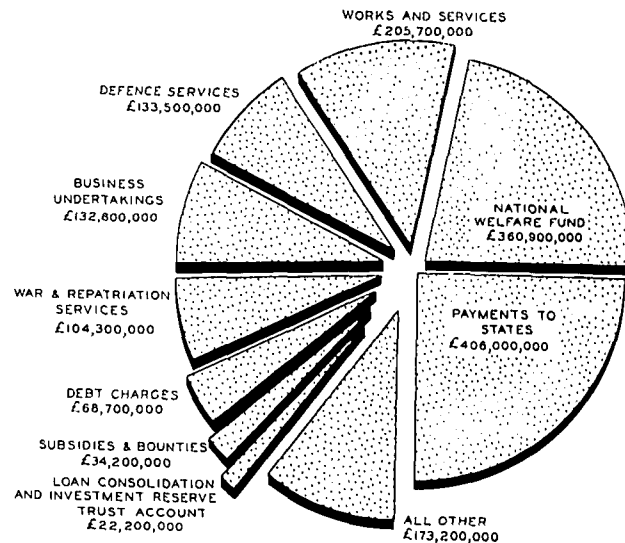
# COMMONWEALTH CONSOLIDATED REVENUE FUND, YEAR ENDED 30<sup>TH</sup> JUNE, 1962

REVENUE



TOTAL REVENUE  
£1,641,500,000

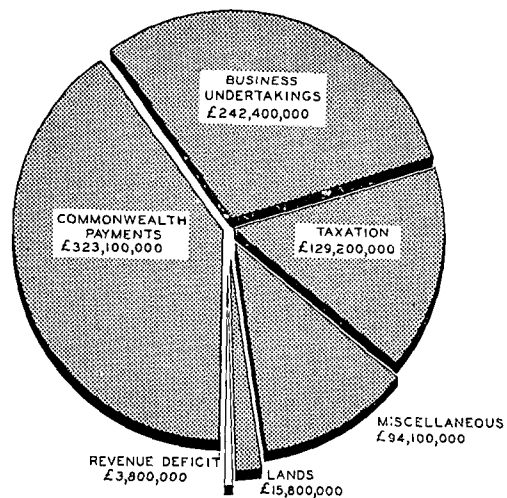
EXPENDITURE



TOTAL EXPENDITURE  
£1,641,500,000

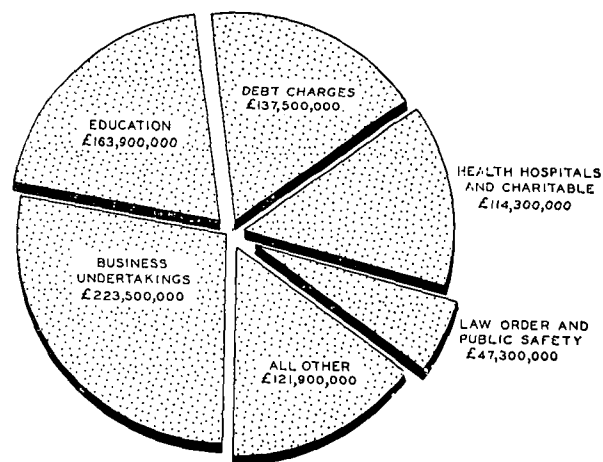
# STATE CONSOLIDATED REVENUE FUNDS, YEAR ENDED 30<sup>TH</sup>. JUNE, 1962

REVENUE



TOTAL REVENUE  
£804,600,000

EXPENDITURE



TOTAL EXPENDITURE  
£808,400,000

£30,899,000 in 1960-61; and £67,847,000 in 1961-62. The major portion of the balance of the Trust Account at 30th June, 1962, was invested in Commonwealth securities in special loans to finance Commonwealth and State works programmes.

7. **Business Undertakings.**—(i) *Postmaster-General's Department.* Details of the expenditure of this Department for the years 1957-58 to 1961-62 are given in the following table.

**POSTMASTER-GENERAL'S DEPARTMENT: EXPENDITURE**  
(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Salaries, stores and materials, mail, engineering services, etc. . . . .	91,777	95,306	106,404	108,593	113,113
Rents, repairs, etc. . . . .	1,339	1,375	1,373	1,543	1,659
<i>Total, Working, etc., Expenses</i> . . . . .	<i>93,116</i>	<i>96,681</i>	<i>107,777</i>	<i>110,136</i>	<i>114,772</i>
Works and services . . . . .	34,811	36,353	39,937	42,145	46,939
<b>Grand Total</b> . . . . .	<b>127,927</b>	<b>133,034</b>	<b>147,714</b>	<b>152,281</b>	<b>161,711</b>

Further details of the Postmaster-General's Department expenditure for 1961-62 appear in Chapter XIV. Transport and Communication, of this Year Book (*see* p. 622).

(ii) *Broadcasting and Television Services.* Details of expenditure for the years 1957-58 to 1961-62 are shown in the following table. Further details of broadcasting and television services appear in Chapter XIV. Transport and Communication of this Year Book (*see* p. 630).

**COMMONWEALTH BROADCASTING AND TELEVISION SERVICES:**  
**EXPENDITURE**  
(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Australian Broadcasting Control Board . .	153	192	258	301	319
Australian Broadcasting Commission— Salaries, general and programme expenses . . . . .	5,100	5,936	7,238	8,460	9,300
Technical and other services—Postmaster- General—Sound broadcasting . . . . .	1,995	2,060	2,181	2,195	2,590
Television . . . . .	58	159	275	386	517
Repairs, maintenance, etc. . . . .	28	24	31	30	74
<i>Total, Working, etc., Expenses</i> . . . . .	<i>7,334</i>	<i>8,371</i>	<i>9,983</i>	<i>11,372</i>	<i>12,800</i>
Works and services . . . . .	1,583	1,408	3,551	1,429	2,847
<b>Grand Total</b> . . . . .	<b>8,917</b>	<b>9,779</b>	<b>13,534</b>	<b>12,801</b>	<b>15,647</b>

(iii) *Railways.* The expenditure on railways for the years 1957-58 to 1961-62 is shown below.

**COMMONWEALTH RAILWAYS: EXPENDITURE**  
(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Working expenses—					
Trans-Australian . . . . .	2,277	2,301	2,610	3,047	3,379
North Australia . . . . .	221	169	202	170	183
Central Australia . . . . .	1,090	1,168	1,185	1,288	1,561
Aust. Capital Territory . . . . .	50	50	52	59	61
Miscellaneous . . . . .	35	37	39	52	38
<i>Total, Working, etc., Expenses</i> . . . . .	<i>3,673</i>	<i>3,725</i>	<i>4,088</i>	<i>4,616</i>	<i>5,222</i>
Works and services . . . . .	2,545	1,281	1,091	1,248	1,697
<b>Grand Total</b> . . . . .	<b>6,218</b>	<b>5,006</b>	<b>5,179</b>	<b>5,864</b>	<b>6,919</b>

Additional details of the financial operations of the Commonwealth Railways to 1961-62 are given in Chapter XIV. Transport and Communication (*see* pp. 591-5).

8. **Territories.**—The following table shows the expenditure on account of Commonwealth Territories for the years 1957-58 to 1961-62. The Australian Capital Territory is administered by the Department of the Interior, and the Department of Territories controls the

Northern Territory and the external territories. The expenditure has been grouped in one table for convenience. Information in greater detail will be found in Chapter V. The Territories of Australia, of this Year Book.

**COMMONWEALTH TERRITORIES: EXPENDITURE**  
(£'000)

Territory	1957-58	1958-59	1959-60	1960-61	1961-62
Administration and maintenance of services—					
Aust. Capital Territory(a) ..	3,075	3,685	4,301	4,805	5,020
Northern Territory(a) ..	4,406	4,877	6,245	6,853	7,758
Papua and New Guinea ..	11,374	11,611	12,951	15,094	17,477
Norfolk Island ..	33	31	32	32	38
Cocos (Keeling) Islands ..	26	36	30	55	35
<i>Total</i> ..	<i>18,914</i>	<i>20,240</i>	<i>23,559</i>	<i>26,839</i>	<i>30,328</i>
Works and services—					
Aust. Capital Territory(a) ..	8,394	11,098	12,433	13,157	13,811
Northern Territory(a) ..	3,300	3,678	3,874	4,531	6,380
Papua and New Guinea ..	8	87	591	532	569
Cocos (Keeling) Islands ..	47	43	3	9	4
<i>Total</i> ..	<i>11,749</i>	<i>14,906</i>	<i>16,901</i>	<i>18,229</i>	<i>20,764</i>

(a) Excludes Railways, see para. 8 (iii), page 929.

9. Works and Services.—In the following table, details are given of Commonwealth expenditure on works and services during each of the years 1957-58 to 1961-62. The table covers all expenditure on works and services made from the Consolidated Revenue Fund and the Loan Fund. In earlier issues of this Year Book, this table covered expenditure from Trust Funds also, but there has been no expenditure on works and services from this source in recent years.

**COMMONWEALTH EXPENDITURE ON WORKS AND SERVICES FROM  
REVENUE AND LOAN FUNDS**  
(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Defence Services—					
Navy .. .. .	9,814	7,504	6,996	9,980	10,594
Army .. .. .	10,732	15,831	13,163	15,270	13,487
Air Force .. .. .	11,366	14,847	12,676	15,427	15,733
Other .. .. .	11,235	7,014	11,871	8,639	8,272
Repatriation Services—					
War service homes .. .. .	35,000	35,000	35,000	35,000	35,000
Other .. .. .	206	308	242	386	461
Postmaster-General's Department	34,807	36,354	39,935	42,143	46,939
Broadcasting and television services	1,583	1,407	3,551	1,429	2,847
Railways—					
Commonwealth .. .. .	2,542	1,239	1,071	1,229	1,696
Overseas Telecommunications .. .. .	..	..	..	..	1,000
Territories—					
Australian Capital Territory .. .. .	8,390	11,095	12,433	13,150	13,808
Northern Territory .. .. .	3,300	3,678	3,874	4,531	6,380
Papua-New Guinea .. .. .	8	87	591	532	569
Cocos (Keeling) Islands .. .. .	47	43	3	9	4
Other—					
Civil aviation .. .. .	4,098	5,688	4,801	5,999	4,564
Snowy Mountains Scheme .. .. .	18,350	24,000	28,250	18,500	16,010
Immigration .. .. .	297	270	350	391	460
Health .. .. .	549	678	811	789	1,034
Subscriptions to capital .. .. .	1,750	4,750	1,300	2,680	11,650
Advances .. .. .	1,297	230	166	500	..
All other works, buildings, etc. .. .. .	10,208	5,575	5,933	8,825	14,166
Source—					
Consolidated Revenue Fund .. .. .	165,589	175,665	183,060	185,461	204,704
Loan Fund .. .. .	-10	-67	-43	-52	-30
<i>Grand Total</i> .. .. .	<i>165,579</i>	<i>175,598</i>	<i>183,017</i>	<i>185,409</i>	<i>204,674</i>

NOTE.—Minus sign (—) indicates excess of credits or repayments over expenditure.

10. Payments to or for the States.—(i) *General.* An outline of the provisions of the Constitution requiring the Commonwealth to make payments to the States, and of the systems which followed, is given in earlier issues of the Official Year Book (see No. 37, pp. 633 to 638). In the following paragraphs, reference is made to the arrangements at present in operation.

(ii) *Amounts Paid.* (a) *Year 1961-62.* The table below shows particulars of the amounts paid to each of the States as grants for the several purposes referred to in subsequent paragraphs.

**COMMONWEALTH PAYMENTS TO OR FOR THE STATES, 1961-62(a)**  
(£'000)

Particulars	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	Total
Financial Agreement—							
Interest on States' debts ..	2,918	2,127	1,096	704	473	267	7,585
Sinking fund on States' debts(b) ..	2,329	1,566	844	899	653	448	6,739
Special grants ..					6,156	5,075	11,231
Financial assistance grants ..	99,249	73,015	43,730	33,225	30,085	12,836	292,140
Additional financial assistance ..	2,240	1,800	3,340	970	660	990	10,000
Commonwealth Aid Roads(c) ..	13,811	10,080	9,093	5,752	8,764	2,500	50,000
<i>Tuberculosis Act 1948</i> —reimbursement of capital expenditure ..	48	57	200	46	12	23	386
National Welfare Fund—Tuberculosis Benefits—maintenance grants ..	1,495	1,110	783	345	397	184	4,314
Mental institutions—contribution to capital expenditure ..	648	..	71	28	77	..	824
Western Australian waterworks grant ..	..	..	..	..	61	..	61
Coal mining industry—long service leave(c) ..	228	..	43	..	15	4	290
Encouragement of meat production ..	..	..	2	..	3	..	5
Grants to universities ..	6,142	3,704	1,309	1,396	994	616	14,161
Cattle tick control ..	330	..	..	..	..	..	330
Dairy industry extension grant ..	65	65	72	18	18	8	246
Expansion of agricultural advisory services ..	74	60	53	27	27	19	260
Development of north-western Australia ..	..	..	..	..	1,705	..	1,705
Grants for railway standardization ..	..	4,000	..	..	..	..	4,000
Cattle roads ..	..	..	650	..	500	..	1,150
Coal loading works—New South Wales ..	284	..	..	..	..	..	284
Natural Disaster Payments ..	50	50	21	..	193	5	319
<b>Total</b> ..	<b>129,911</b>	<b>97,634</b>	<b>61,307</b>	<b>43,410</b>	<b>50,793</b>	<b>22,975</b>	<b>406,030</b>

(a) Excludes relief to primary producers, subsidies and bounties, and other payments for medical research, etc. (b) Paid to National Debt Sinking Fund. (c) Paid to Trust Fund.

(b) 1957-58 to 1961-62. The following table shows particulars of payments by the Commonwealth to or on behalf of the States during each of these years.

**COMMONWEALTH PAYMENTS TO OR FOR THE STATES(a)**  
(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Financial Agreement—					
Interest on States' debts ..	7,585	7,585	7,585	7,585	7,585
Sinking fund on States' debts(b) ..	5,065	5,386	5,942	6,274	6,739
Special grants ..	19,500	20,750	8,326	8,618	11,231
Financial assistance grants ..	165,820	174,547	244,500	269,994	292,140
Special financial assistance ..	24,145	30,437	..	..	..
Additional financial assistance ..	5,000	..	..	..	10,000
Grants for road construction, etc.(c) ..	31,664	33,249	43,923	46,000	50,000
Commonwealth Aid Roads—special assistance ..	2,950	2,950	..	..	..
<i>Tuberculosis Act 1948</i> —reimbursement of capital expenditure ..	2,142	1,412	781	410	386
National Welfare Fund—Tuberculosis Benefits—maintenance grants ..	4,495	4,767	4,299	4,157	4,314
Mental institutions—contribution to capital expenditure ..	1,256	1,120	1,147	727	824
Western Australian waterworks grants ..	677	524	609	517	61
Coal mining industry—long service leave(c) ..	590	525	484	380	290
Encouragement of meat production ..	98	16	6	7	5
Grants to universities ..	3,074	6,919	7,628	11,227	14,161
Cattle tick control ..	536	578	477	541	330
Dairy industry extension grant ..	219	261	247	243	246
Expansion of agricultural advisory services ..	265	236	218	264	260
Development of north-western Australia ..	..	171	484	1,208	1,705
Grants for railway standardization ..	1,070	1,882	3,723	4,716	4,000
Cattle roads ..	..	..	..	..	1,150
Coal loading works—New South Wales ..	..	..	..	..	284
Natural Disaster Payments ..	253	99	163	323	319
<b>Total</b> ..	<b>276,404</b>	<b>293,414</b>	<b>330,542</b>	<b>363,191</b>	<b>406,030</b>

(a) Excludes relief to primary producers, subsidies and bounties, and other payments for medical research, etc. (b) Paid to National Debt Sinking Fund. (c) Paid to Trust Fund.

(c) The following table shows particulars of payments by the Commonwealth to each of the States to 30th June, 1962.

**COMMONWEALTH PAYMENTS TO OR FOR THE STATES TO 30th JUNE, 1962(a)**  
(£'000)

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
Section 87 of Constitution, 1900-01 to 1909-10 ..	27,732	19,988	8,921	6,193	8,758	2,612	74,204
<i>Surplus Revenue Acts</i> , 1910-11 to 1926-27 ..	41,508	31,168	15,158	9,879	9,757	4,357	111,827
Financial agreements, 1927-28 to 1961-62 ..	134,477	93,063	49,558	35,627	25,525	13,639	351,889
Special grants(b) ..	..	..	..	78,096	113,191	50,137	241,424
Income tax reimbursement grants, 1942-43 to 1945-46(c) ..	55,419	24,330	22,212	9,038	9,492	3,409	123,900
Income tax reimbursement special grants, 1945-46 to 1946-47(c) ..	..	..	..	1,654	913	119	2,686
Entertainments tax reimbursement grants, 1942-43 to 1945-46(d) ..	603	1,399	..	364	368	138	2,872
Tax reimbursement grants, 1947-48 to 1958-59(e) ..	525,633	336,069	215,973	120,052	108,474	45,635	1,351,836
Additional tax reimbursement grants (f) ..	2,027	1,160	814	429	410	160	5,000
Special financial assistance(g) ..	80,419	55,320	31,388	17,345	15,603	6,799	206,874
Additional assistance(h) ..	1,989	1,061	1,125	368	315	142	5,000
Non-recurring grants from excess receipts, 1934-35 to 1936-37 ..	1,188	827	433	265	201	86	3,000
Financial assistance grants(i) ..	274,687	201,011	120,056	91,627	83,524	35,729	806,634
Additional financial assistance(j) ..	2,240	1,800	3,340	970	660	990	10,000
Special assistance(k) ..	21,888	8,334	6,318	4,878	12,066	1,164	54,648
Grants for road construction, 1922-23 to 1961-62(l) ..	119,232	79,143	80,923	48,127	80,728	21,475	429,628
Payments to Commonwealth Aid Roads (Supplementary) Trust Account(m) ..	..	..	..	..	..	..	5,000
<i>Tuberculosis Act</i> 1948—reimbursement of capital expenditure ..	5,099	1,671	4,985	738	2,238	298	15,029
<i>Tuberculosis Act</i> 1948—maintenance grants ..	14,755	12,480	6,751	3,764	5,027	1,905	44,682
Mental institutions—contribution to capital expenditure ..	2,554	2,740	628	580	238	355	7,095
Encouragement of meat production ..	..	..	1,326	..	835	..	2,161
Grants to universities ..	21,370	12,508	6,123	5,577	4,177	2,833	52,588
Grants for railway standardization(n) ..	..	14,485	..	5,110	..	..	19,595
<b>Total</b> ..	<b>1,332,820</b>	<b>898,557</b>	<b>576,032</b>	<b>440,681</b>	<b>482,500</b>	<b>191,982</b>	<b>3,927,572</b>

(a) Includes non-recurring grants from excess receipts, but excludes payments on account of the Morgan-Whylla Waterworks, amounts provided for relief of wheat-growers and other primary producers, and other payments for medical research, social services, etc.

(b) Under various States Grants Acts. (c) Under *States Grants (Income Tax Reimbursement) Act* 1942.

(d) Under *States Grants (Entertainments Tax Reimbursement) Act* 1942. (e) Under *States Grants (Tax Reimbursement) Act* 1946-48.

(f) Under *States Grants (Additional Tax Reimbursement) Act* 1950. (g) Under *States Grants (Special Financial Assistance) Acts* 1951 and 1952.

(h) Under *States Grants (Additional Assistance) Act* 1958. (i) Under *States Grants Act* 1959. (j) Under *States Grants (Additional Assistance) Act* 1962.

(k) Includes natural disaster (flood, cyclone, bush fire, drought, etc.) payments, unemployment relief, metalliferous mining, forestry, local public works, grants for price control reimbursement, coal strike emergency grant, grants for imported houses, Port Augusta-Port Pirie railway, Western Australian waterworks, cattle tick control, dairy industry extension, agricultural advisory services, cattle roads, coal-loading works, etc.

(l) Under *Main Roads Development, Federal Aid Roads, Federal Aid Roads and Works and Commonwealth Aid Roads Acts*.

(m) Expenditure not allocable between States.

(n) Under the *Railway Standardization (South Australia) Agreement Act* 1949 and the *Railway Standardization (New South Wales and Victoria) Agreement Act* 1958. Includes repayable advances.

Particulars of special Commonwealth grants for the relief of primary producers are not included in the foregoing tables. See para. 4, Subsidies and Bounties, page 925, and para. 12, Other Expenditure, page 937.

(iii) *Financial Agreement*. Details of the Financial Agreement between the Commonwealth and the States are given in Official Year Book No. 37, pages 685-90. Under this Agreement, the Commonwealth undertook to contribute £7,584,912 per annum towards interest payable on the State loan securities for a period of 58 years from 1st July, 1927. This amount is distributed among the States as follows:—New South Wales, £2,917,411; Victoria, £2,127,159; Queensland, £1,096,235; South Australia, £703,816; Western Australia, £473,432; Tasmania, £266,859.

These amounts are equal to the sums paid by the Commonwealth to each State in the year 1926-27 at the rate of 25s. per head of population, the rate at which the Commonwealth had contributed annually to the States since 1st July, 1910, as compensation for the States relinquishing, after federation, the right to levy customs and excise duties.

In addition, under the Financial Agreement, the Commonwealth agreed to make certain contributions to the National Debt Sinking Fund for redemption of State loan securities. Details of these are given on pages 955-6 of this chapter.

(iv) *Special Grants.* The Constitution provides in Section 96 for the granting of special financial assistance to the States. Prior to 1933, financial assistance of varying amounts was granted by the Commonwealth to South Australia, Western Australia and Tasmania. Details of this may be found in earlier issues of the Official Year Book (*see* No. 40, p. 695).

In 1933, the Commonwealth Government appointed the Commonwealth Grants Commission of three members to inquire into and report upon claims made by any State for a grant of financial assistance and any matters relevant thereto.

Applications have been received from South Australia, Western Australia and Tasmania each year from 1933 onwards, and the recommendations of the Commission in respect of the years 1958-59 to 1962-63 are shown in the following table. Commencing with 1949-50, the Commission has divided the grants recommended into two parts. One part is the Commission's estimate of the indispensable need of the claimant State for the year in which the payment is to be made after allowing a sufficient margin for safety. The other part is an adjustment of this estimate for an earlier year after an examination of the audited accounts for that year. Thus the grants for 1962-63 include an estimate of the indispensable need of the claimant State for 1962-63 and an adjustment to the estimated grant for 1960-61. South Australia agreed with the Commonwealth not to apply for special grants in other than exceptional circumstances after 1st July, 1959, when the new financial arrangements under the *States Grants Act* 1959 came into operation (*see* sub-para. (v) below).

#### COMMONWEALTH GRANTS COMMISSION: GRANTS RECOMMENDED

(£'000)

Particulars	1958-59	1959-60	1960-61	1961-62	1962-63
South Australia—					
Estimated grant .. ..	5,201	..	..	..	..
Adjustment(a) .. ..	49	(b) 1,426	..	..	..
<i>Net grant recommended</i> ..	<u>5,250</u>	<u>1,426</u>	..	..	..
Western Australia—					
Estimated grant .. ..	9,758	3,149	3,700	5,200	5,900
Adjustment(a) .. ..	1,342	351	609	956	310
<i>Net grant recommended</i> ..	<u>11,100</u>	<u>3,500</u>	<u>4,309</u>	<u>6,156</u>	<u>6,210</u>
Tasmania—					
Estimated grant .. ..	4,414	2,597	3,400	4,100	4,900
Adjustment(a) .. ..	— 14	803	909	975	141
<i>Net grant recommended</i> ..	<u>4,400</u>	<u>3,400</u>	<u>4,309</u>	<u>5,075</u>	<u>5,041</u>
<b>Grand Total .. ..</b>	<b>20,750</b>	<b>8,326</b>	<b>8,618</b>	<b>11,231</b>	<b>11,251</b>

(a) Adjustment to estimated grant paid two years previously.  
payment of £1,027,000 in 1959-60.

(b) Includes the final adjusting

(v) *Financial Assistance Grants.* The *States Grants Act* 1959 repealed the *States Grants (Tax Reimbursement) Acts* of 1946, 1947 and 1948 and provided for payment of financial assistance to the States in 1959-60 amounting to £244,500,000 to be distributed among the States as follows:—New South Wales, £83,450,000; Victoria, £60,625,000; Queensland, £36,375,000; South Australia, £27,675,000; Western Australia, £25,462,000; Tasmania, £10,913,000. In subsequent years, the financial assistance grant payable to each State has been determined by increasing its grant for 1959-60 in accordance with a formula which takes into account movements in population in each State and the increases (if any) in the level of average wages per person employed as shown in returns submitted under the *Pay-roll Tax Assessment Act* 1941-1961. In 1961-62, the grants determined according to this formula were as follows:—New South Wales, £99,249,000; Victoria, £73,015,000; Queensland, £43,730,000; South Australia, £33,225,000; Western Australia, £30,085,000; Tasmania, £12,836,000.

Details of the *States Grants (Income Tax Reimbursement) Act* 1942 and the *States Grants (Entertainments Tax Reimbursement) Act* 1942 are given in earlier issues of the Official Year Book (*see* No. 37, pp. 635-7). These Acts provided for grants to the States as compensation for vacating the fields of income tax and entertainments tax. Grants under these Acts ceased after 1945-46 and were replaced by grants under the *States Grants (Tax Reimbursement) Act* 1946-1948 which expired after 1958-59. *See* Official Year Book No. 46, pages 837-8.



(vi) *Special Financial Assistance Grants.* During the years 1954–55 to 1958–59, there were heavy additions to the financial needs of the States, and special assistance grants amounting to £19,902,000, £15,348,000, £19,405,000, £24,145,000 and £30,437,000, respectively, were made. For details of amounts paid to each State see earlier issues of the Official Year Book or the annual bulletin *Finance, Part I.—Public and Private Finance.*

(vii) *Additional Financial Assistance.* The *States Grants (Additional Assistance) Act* 1958 provided for the payment of £5,000,000 from the Consolidated Revenue Fund for financial assistance to the States.

During 1961–62, an additional assistance grant of £10,000,000 was provided to the States on a non-repayable basis under the authority of the *States Grants (Additional Assistance) Act* 1962 for expenditure on employment-giving activities, mainly in the works field.

(viii) *Grants for Road Construction.* (a) *Main Roads Development Act* 1923–1925, *Federal Aid Roads Acts* 1926, 1931 and 1936, *Federal Aid Roads and Works Act* 1937, *Commonwealth Aid Roads and Works Act* 1947–1949, *Commonwealth Aid Roads Act* 1950, *Commonwealth Aid Roads Act* 1954, and *Commonwealth Aid Roads (Special Assistance) Act* 1957. Details of these Acts are given in earlier issues of the Official Year Book (see No. 38, pp. 787–8, No. 41, p. 62, and No. 46, p. 838) and in the annual bulletin *Finance, Part I.—Public and Private Finance.*

(b) *Commonwealth Aid Roads Act* 1959. A new scheme of Commonwealth assistance to the States for roads was established by the *Commonwealth Aid Roads Act* 1959. Under this Act, which is to operate for a period of five years from 1st July, 1959, the Commonwealth has undertaken to make available up to £250,000,000 to the States for the construction, reconstruction, maintenance and repair of roads.

Of this amount, a total of £220,000,000 will be paid to the States as basic grants for roads over five years. The basic grants are fixed annual amounts which rise progressively by £2,000,000 a year from £40,000,000 in 1959–60 to £48,000,000 in 1963–64. In each year, the grants will be distributed between the States on the basis of 5 per cent. of the total to Tasmania and the balance shared between the other five States, one-third in proportion to their respective populations at the date of the last preceding Census, one-third in proportion to their respective areas, and one-third in proportion to the respective number of motor vehicles registered in these States at 31st December preceding the year of payment.

The balance of up to £30,000,000 over the five years will be made available to the States as matching assistance for roads. The total amounts of matching assistance will increase by £2,000,000 a year from £2,000,000 in 1959–60 to £10,000,000 in 1963–64. Up to the limit of its share of the total matching assistance available in any year, each State qualifies for £1 of matching assistance from the Commonwealth for each £1 by which the amount it allocates in that year from its own resources for expenditure on roads exceeds the amount so allocated in 1958–59. The share of each State in the total matching assistance available in any year is determined by the same formula as is used to determine its share of the basic grant in that year.

The full amount of the matching assistance available to each State in any year is being paid during that year on the understanding that the road grants to the State in the following year will be adjusted if it is subsequently found that the State did not qualify in full for the matching assistance paid to it in that year.

The legislation relating to the years 1947–48 to 1958–59 provided for annual allocations to the Commonwealth for expenditure on strategic roads and the promotion of road safety practices. No such provisions are contained in the present legislation, the Commonwealth making separate provision for these purposes.

(ix) *Tuberculosis Act* 1948. The *Tuberculosis Act* 1948 provided for the reimbursement by the Commonwealth of capital and maintenance expenditure incurred by the States in the provision of facilities for the diagnosis, treatment and control of tuberculosis.

Re-imbursments from the National Welfare Fund of maintenance expenditure on tuberculosis hospitals equal the amounts by which such expenditures of the States in any financial year exceed those for the year 1947–48. As from 1st July, 1948, the States have also been reimbursed from annual appropriations of the Department of Health for all their capital expenditure on buildings, furnishings, equipment and plant.

(x) *States Grants (Mental Institutions) Act* 1955. This Act provides for financial assistance to the States for capital expenditure on mental institutions to a maximum amount of £10,000,000. Each State is entitled to one-third of expenditure made on or after 1st July, 1955, on buildings or equipment of a mental institution.

(xi) *Other Payments.* (a) *Western Australian Waterworks.* The *Western Australia Grant (Water Supply) Act* 1948–1957 provides for grants to Western Australia not exceeding

an aggregate of £5,000,000 for the development of the Agricultural Areas, Great Southern Towns and Goldfields Water Supply schemes. The amount provided by the Commonwealth is not to exceed half the total expenditure on the scheme.

(b) *Coal Mining Industry—Long Service Leave.* To provide funds for the payment for long service leave in the coal mining industry, the Commonwealth imposed an excise duty of 6d. a ton on coal produced from 1st November, 1949. The rate of duty was raised to 7½d. a ton from 26th August, 1951, and to 8d. a ton from 30th May, 1952. The proceeds of this excise duty are paid to a trust fund out of which the States are reimbursed for expenditure incurred in granting long service leave to employees in the coal mining industry.

(c) *Encouragement of Meat Production.* To develop meat production in Queensland and Western Australia, grants are made to these States for the provision and improvement of roads and other facilities for the movement of live-stock. Provision is made for the Commonwealth to meet the cost of the construction and improvement of certain specified roads in both States and the construction of eight cattle loading and unloading points in Queensland. Provision is also made for the Commonwealth to meet half the cost of improving watering facilities on specified stock routes in both States. The amount of the grants for improving watering facilities on stock routes is limited to £150,000 in Queensland and £50,000 in Western Australia.

(d) *Grants to Universities.* Payments to the States for universities were first introduced in 1951–52 under the *States Grants (Universities) Act 1951*, and were continued under similar legislation passed in 1953, 1955, 1956 and 1957. Following on the Government's acceptance of the main recommendations of the Committee on Australian Universities, the provisions of the 1957 Act relating to financial assistance for 1958 were superseded by the *States Grants (Universities) Act 1958*, which operated from 1st January, 1958.

This legislation authorized the Commonwealth to make payments to the States for universities of up to £21,400,000 over the three calendar years 1958 to 1960, inclusive, where certain conditions have been satisfied. These payments include increased contributions towards the running expenses of universities, new grants for capital works and equipment and new emergency grants.

Under the *States Grants (Universities) Act 1960*, which carried on the principle of grants for capital works and equipment introduced in the 1958 legislation, payments of up to £42,000,000 over the three calendar years 1961, 1962 and 1963 are to be made to the States. (See also Chapter XVIII. Education, Cultural Activities, and Research, pp. 748–51.)

(e) *Cattle Tick Control.* Since 1926–27, the Commonwealth has subsidized the cost of eradication and control of cattle tick in New South Wales. From 1950–51, the subsidy was increased on a £1 for £1 basis up to an agreed maximum. The payments are charged to the departmental expenditure of the Department of Health.

(f) *Western Australia Northern Development.* The Commonwealth provides financial assistance of up to £5,000,000 to the State of Western Australia under the *Western Australia Grant (Northern Development) Act 1958–59* in respect of developmental expenditure by the State in the area of Western Australia north of the twentieth parallel of latitude during the period of five years commencing on 1st July, 1958. Under the scheme, Commonwealth assistance is provided in respect of projects, nominated by the State, which the Commonwealth is satisfied will contribute to the development of the area and which could not reasonably be expected to be carried out during the period of five years without the grant of Commonwealth assistance.

Payments to the State during 1961–62 amounted to £1,705,000, bringing total payments by the Commonwealth in respect of the scheme to £3,568,000.

(g) *Dairy Industry Extension Grant.* The Commonwealth provides financial assistance, with a maximum annual limit of £250,000, to promote improved farm practices in the dairy industry. The grants are charged to the departmental expenditure of the Department of Primary Industry.

(h) *Expansion of Agricultural Advisory Services.* These payments were introduced in 1952–53 to encourage expansion of agricultural advisory services by the State Departments of Agriculture and to promote increased farm efficiency. The payments are charged to the departmental expenditure of the Department of Primary Industry.

(i) *Grants for Railway Projects.* Under the *Railway Standardization (South Australia) Agreement Act 1949*, the Commonwealth is providing funds for the conversion of lines in the south-eastern division of the State as an initial step towards eventual standardization of 4' 8½" gauge. The State is to repay three-tenths of the cost of this work over a period of 50 years and is to bear the full cost of subsequent conversion from broad to standard gauge.

Under the *Railway Standardization (New South Wales and Victoria) Agreement Act* 1958 the Commonwealth provided funds for the construction of the standard gauge rail link between Albury and Melbourne on the basis that the States of Victoria and New South Wales will each bear 15 per cent. of the cost by instalments over a period of 50 years.

The total expenditure on railway standardization (the 30 per cent. advances to the States and the 70 per cent. grants to the States) is charged to the capital works and services vote of the Department of Shipping and Transport.

(j) *Cattle Roads Grants.* The *Queensland Grant (Beef Cattle Roads) Act* 1961 provides for a grant of £5,000,000 to be paid to Queensland over the five-year period commencing 1st July, 1961, for expenditure on approved roads for the transport of beef cattle. In 1961-62, an amount of £650,000 was paid to the State.

Under the *Western Australia Grant (Beef Cattle Roads) Act* 1961, a special grant of £500,000 was made to Western Australia in 1961-62 for certain work on roads and bridges in the north of the State.

(k) *Coal Loading Works—New South Wales.* Under the *Coal Loading Works Agreement (New South Wales) Act* 1961, the Commonwealth is providing financial assistance to New South Wales of up to £2,650,000, partly by way of repayable advances from the Consolidated Revenue Fund and partly by grants from the Coal Industry Fund of the Joint Coal Board, for improvements to coal loading facilities at Newcastle, Port Kembla and Balmain. In 1961-62, repayable advances amounted to £284,000 and grants to £172,000.

(l) *Natural Disaster Payments.* Special Commonwealth payments are provided to assist State schemes for the relief of personal hardship and distress caused by serious floods, cyclones or bush fires in the States and for restoration of damaged public assets such as roads and bridges.

11. **Primary Production Research and Sales Promotion, Export Funds, etc.**—Expenditure under this item includes the proceeds of special industry taxes and profits from marketing schemes which are paid to trust funds or other authorities for the purposes of the industries concerned. Information relating to the taxes levied is given in sub-section Revenue, of this section (see pp. 920-2). Details of expenditure from the trust funds are included in § 4, Commonwealth Trust Funds. Details of expenditure from the Consolidated Revenue Fund during the last five years are given in the following table.

**PRIMARY PRODUCTION—RESEARCH AND SALES PROMOTION, EXPORT FUNDS, ETC.: EXPENDITURE FROM COMMONWEALTH CONSOLIDATED REVENUE FUND**  
(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
<b>Research and sales promotion—</b>					
Canned fruit (sales promotion) .. ..	..	..	35	27	53
Cattle and beef research .. ..	..	..	..	82	170
Dairy produce research .. ..	..	..	162	198	277
Dairy produce sales promotion .. ..	..	151	207	222	262
Tobacco industry research .. ..	61	72	112	125	169
Wheat research .. ..	185	207	187	262	234
Wool research .. ..	1,328	1,389	1,542	1,455	1,507
Wool use promotion .. ..	885	926	1,028	1,168	2,346
<b>Export funds—</b>					
Apple and pear .. ..	38	43	45	81	102
Canned fruits .. ..	52	70	76	59	66
Dairy produce .. ..	65	96	100	81	104
Dried fruits .. ..	45	51	43	34	54
Egg .. ..	7	6	36	60	34
Meat .. ..	99	160	131	100	139
Wine .. ..	84	140	109	93	112
<b>Other—</b>					
Meat agreement deficiency payments .. ..	5,927	..	..	..	264
Fisheries development .. ..	215	114	9	1	..
Other .. ..	740	26	17	5	2
<b>Total .. ..</b>	<b>9,731</b>	<b>3,451</b>	<b>3,839</b>	<b>4,053</b>	<b>5,895</b>

12. **Other Expenditure.**—Expenditure shown in this table covers expenditure not included under other headings, and in the main relates to expenditure on administrative services and other activities (i.e. what might be termed "running expenses").

Information on the functions of departments and the Acts administered by the Ministers of departments may be found on pages 87–98 of this Year Book.

**COMMONWEALTH CONSOLIDATED REVENUE FUND: OTHER EXPENDITURE**  
(£'000)

Department	1957–58	1958–59	1959–60	1960–61	1961–62
Governor-General .. .. .	158	147	164	148	171
Parliament .. .. .	1,768	1,910	2,236	2,277	2,213
Prime Minister—					
Audit Office .. .. .	622	623	709	725	771
Public Service Board .. .. .	619	667	755	829	868
National Library .. .. .	180	201	280	353	463
British High Commissioner's Office .. .. .	762	832	928	966	1,083
Australian National University .. .. .	1,196	1,404	1,684	2,389	3,200
Australian Universities Commission .. .. .	..	..	23	28	29
Commonwealth Grants Commission .. .. .	22	21	24	26	27
Office of Education .. .. .	310	408	385	412	521
Security services .. .. .	483	498	578	669	661
Commonwealth Scholarship Scheme .. .. .	1,243	1,587	2,100	2,551	2,927
Grants-in-aid .. .. .	159	175	324	224	360
Departmental, n.e.i. .. .. .	584	582	756	630	747
<i>Total, Prime Minister .. .. .</i>	<i>6,180</i>	<i>6,998</i>	<i>8,546</i>	<i>9,802</i>	<i>11,657</i>
External Affairs—					
Oversea representation .. .. .	1,569	1,655	1,983	2,320	2,690
United Nations and allied organizations .. .. .	828	927	993	1,264	2,737
Colombo Plan—Economic development .. .. .	3,872	2,152	3,172	2,870	2,232
Technical assistance .. .. .	1,125	1,252	1,292	1,572	1,767
Indus Basin Development .. .. .	..	..	..	268	1,358
Other international development and relief .. .. .	670	693	758	1,097	910
Departmental, n.e.i. .. .. .	828	954	1,003	995	1,105
Antarctic Division .. .. .	389	527	738	764	731
<i>Total .. .. .</i>	<i>9,281</i>	<i>8,160</i>	<i>9,939</i>	<i>11,150</i>	<i>13,530</i>
Treasury—					
Taxation Branch and Boards of Review .. .. .	8,385	8,641	9,822	10,200	10,987
Bureau of Census and Statistics .. .. .	1,217	1,493	1,841	2,188	3,324
Commonwealth Superannuation Board .. .. .	93	88	108	127	144
Superannuation Act—total Government contributions .. .. .	4,221	4,773	5,356	5,978	6,861
I.B.R.D. and I.M.F. .. .. .	3,500	20,302	14,742	2,930	3,521
Departmental, n.e.i. .. .. .	1,297	1,493	1,896	2,428	2,268
<i>Total .. .. .</i>	<i>18,713</i>	<i>36,790</i>	<i>33,765</i>	<i>23,851</i>	<i>27,105</i>
Attorney-General—					
Crown Solicitor .. .. .	336	343	413	420	439
High Court .. .. .	111	131	148	158	169
Bankruptcy .. .. .	170	180	197	214	242
Conciliation and Arbitration Commission, Industrial Court and Registrar .. .. .	219	245	281	318	352
Patents, Trade Marks and Designs .. .. .	407	414	475	476	520
Other branches .. .. .	365	396	516	533	586
Departmental, n.e.i. .. .. .	372	386	405	476	510
<i>Total .. .. .</i>	<i>1,980</i>	<i>2,095</i>	<i>2,435</i>	<i>2,595</i>	<i>2,818</i>
Interior—					
Electoral Branch .. .. .	612	911	702	694	1,100
Bureau of Meteorology .. .. .	1,090	1,372	1,655	1,727	1,861
Ionospheric Prediction Service .. .. .	41	44	52	57	74
Forestry Branch .. .. .	154	144	190	195	234
News and Information Bureau .. .. .	410	417	453	479	529
Surveys .. .. .	..	..	97	92	91
Departmental, n.e.i. .. .. .	1,772	1,763	1,610	1,872	1,916
<i>Total .. .. .</i>	<i>4,079</i>	<i>4,651</i>	<i>4,759</i>	<i>5,116</i>	<i>5,815</i>

COMMONWEALTH CONSOLIDATED REVENUE FUND: OTHER  
EXPENDITURE—*continued*  
(£'000)

Department	1957-58	1958-59	1959-60	1960-61	1961-62
Works .. .. .	2,296	2,244	2,970	2,938	3,644
Civil Aviation—					
Maintenance and development of civil aviation .. .. .	5,661	7,066	7,594	7,528	7,613
Meteorological services .. .. .	565	653	776	828	895
Departmental, n.e.i. .. .. .	3,298	3,087	3,484	3,651	3,888
<i>Total</i> .. .. .	9,524	10,806	11,854	12,007	12,396
Customs and Excise—					
Refunds of diesel fuel taxation .. .. .	1,315	989	278	115	129
Departmental .. .. .	4,246	4,427	5,208	5,873	5,356
<i>Total</i> .. .. .	5,561	5,416	5,486	5,988	5,485
Health .. .. .	2,293	2,389	2,801	3,136	3,461
Trade—					
Tariff Board .. .. .	89	134	166	175	209
Commercial intelligence services abroad .. .. .	562	619	694	871	1,018
Departmental, n.e.i. .. .. .	1,617	2,376	2,026	2,194	2,635
<i>Total</i> .. .. .	2,268	3,129	2,886	3,240	3,882
Primary Industry—					
Inspection of goods for export .. .. .	1,043	1,144	1,321	1,360	1,446
Division of Agricultural Economics .. .. .	142	133	157	172	188
Departmental, n.e.i. .. .. .	584	686	765	785	976
<i>Total</i> .. .. .	1,769	1,963	2,243	2,317	2,610
Social Services—					
Homes for aged persons—grants to eligible organizations .. .. .	838	1,767	1,872	2,154	3,473
Departmental .. .. .	3,295	3,460	3,955	4,090	4,531
<i>Total</i> .. .. .	4,133	5,227	5,827	6,244	8,004
Shipping and Transport—					
Marine Services Division .. .. .	1,159	1,224	1,367	1,402	1,389
Road safety practices .. .. .	150	150	150	150	150
Departmental, n.e.i. .. .. .	1,151	1,102	603	469	633
<i>Total</i> .. .. .	2,460	2,476	2,120	2,022	2,172
Territories .. .. .	266	274	343	379	433
Immigration—					
Assisted migration .. .. .	6,835	7,188	7,567	7,348	5,984
Other migration activities .. .. .	1,870	1,862	1,811	1,994	2,578
Departmental, n.e.i. .. .. .	2,129	2,175	2,363	2,429	2,501
<i>Total</i> .. .. .	10,834	11,225	11,741	11,771	11,063
Labour and National Service—					
Stevedoring Industry Charge .. .. .	3,337	4,572	3,717	3,542	3,436
Departmental .. .. .	2,205	2,281	2,581	2,630	2,779
<i>Total</i> .. .. .	5,542	6,853	6,298	6,172	6,215
National Development—					
Bureau of Mineral Resources .. .. .	786	784	1,027	1,346	1,683
Division of National Mapping .. .. .	307	312	415	417	577
Joint Coal Board .. .. .	195	170	175	187	155
Australian Atomic Energy Commission .. .. .	1,331	1,525	2,233	2,379	2,804
Departmental, n.e.i. .. .. .	289	446	352	874	458
<i>Total</i> .. .. .	2,908	3,237	4,202	5,203	5,677
Commonwealth Scientific and Industrial Research Organization .. .. .	5,597	6,287	7,280	7,812	8,671
<b>Total, Other Expenditure .. .. .</b>	<b>97,610</b>	<b>122,277</b>	<b>127,895</b>	<b>124,168</b>	<b>137,022</b>

## § 4. Commonwealth Trust Funds

1. Receipts, Expenditure and Balances, 1961-62.—The following table shows the opening and closing balances and receipts and expenditure of some of the more important trust funds of the Commonwealth for the year ended 30th June, 1962.

## COMMONWEALTH TRUST FUNDS: RECEIPTS, EXPENDITURE AND BALANCES, 1961-62

(£'000)

Fund	Balance at 30th June, 1961	Year ended 30th June, 1962		Balance at 30th June, 1962
		Receipts	Expenditure	
Canadian Loan .. .. .	7,145	301	119	7,327
Coal Mining Industry Long Service Leave	2,146	392	645	1,893
Coinage .. .. .	..	3,816	3,816	..
Commonwealth Aid Roads (Supplementary)	73	..	6	67
Defence Forces Retirement Benefits ..	16,249	6,106	3,150	19,205
Insurance Deposits .. .. .	6,524	4,775	1,021	10,278
Interest Suspense .. .. .	519	12,871	13,390	..
International Development and Relief ..	70	335	213	192
Korean Operations Pool .. .. .	11,464	..	..	11,464
Lend-Lease Settlement .. .. .	700	34	245	489
Loan Consolidation and Investment Reserve	328,858	35,160	69,381	294,637
National Debt Sinking Fund .. .. .	161,186	76,651	94,598	143,239
National Welfare .. .. .	203,016	367,228	365,191	205,053
Parliamentary Retiring Allowances ..	431	123	81	473
Pensions Suspense .. .. .	7,478	239	7,605	112
Post Office Stores and Services .. .. .	209	57,511	57,706	14
Superannuation .. .. .	80,951	20,639	10,208	91,382
Swiss Loan .. .. .	15,142	558	..	15,700
Taxation Funds Suspense .. .. .	773	5	757	21
Temple Society .. .. .	486	269	244	511
Tobacco Industry .. .. .	94	236	240	90
War Service Homes .. .. .	..	36,171	36,171	..
War Service Homes—Insurance .. .. .	794	283	241	836
Wheat Industry Stabilization .. .. .	266	..	..	266
Wheat Prices Stabilization .. .. .	4,960	11,962	16,922	..
Wheat Research .. .. .	740	431	408	763
Wine Research .. .. .	426	19	18	427
Wool Research .. .. .	9,222	1,983	2,551	8,654
Other .. .. .	14,195	77,733	77,548	14,380
<b>Total .. .. .</b>	<b>874,117</b>	<b>715,831</b>	<b>762,475</b>	<b>827,473</b>

2. Summary, 1957-58 to 1961-62.—In the following table, the balances and total receipts and expenditure of the trust funds are shown for each of these years.

## COMMONWEALTH TRUST FUNDS

(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Balances brought forward .. .. .	904,447	888,033	810,099	767,830	874,117
Receipts .. .. .	910,244	880,171	915,830	1,059,621	715,831
Expenditure .. .. .	926,658	958,105	958,099	953,334	762,475
Balance carried forward .. .. .	888,033	810,099	767,830	874,117	827,473

## § 5. Commonwealth Loan Fund

Brief historical notes relating to the Commonwealth Loan Fund are given in earlier issues of the Official Year Book (see No. 37, p. 640). In the following table, details are given of the net expenditure from the Commonwealth Loan Fund for the years 1957-58 to 1961-62 and of the aggregate expenditure to 30th June, 1962. The figures shown relate to disbursements for Commonwealth purposes only and represent "net" loan expenditure, i.e., after adjustments have been made for refunds of amounts expended in earlier years.

**COMMONWEALTH NET EXPENDITURE FROM LOAN FUND**  
(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62	Total to 30th June, 1962
War Loans—						
Defence and War (1914-18, 1939-45) services .. .. .	(a)8,703	(a)5,700	(a)6,937	(a)2,027	(a)1,577	2,046,303
Defence services—						
General services, works, armaments, etc. ..	..	37,308	11,987	..	23,641	72,936
Other Loans—						
Capital works and services—						
Defence(b) .. .. .	..	— 2	— 17	— 9	— 26	8,628
Repatriation services(b)—						
War service homes(b) .. .. .	..	..	..	..	..	7,329
Other .. .. .	..	..	..	..	..	47
Postmaster-General's Department	— 3	2	— 1	— 2	..	40,412
Broadcasting services .. .. .	..	..	..	..	..	104
Railways .. .. .	— 3	— 42	— 20	— 19	..	13,660
Territories(c) .. .. .	— 4	— 3	..	— 7	— 4	8,695
Other—						
Ships, yards and docks .. .. .	..	..	..	..	..	7,694
Civil aviation .. .. .	..	..	..	..	..	213
Immigration .. .. .	..	..	..	..	..	1,681
Emergency wheat storage .. .. .	— 30	— 21	..	..	..	3,071
All other works, buildings, etc. ..	..	— 1	— 5	— 15	..	4,203
Other purposes—						
Assistance to States—						
Farmers' debt adjustment .. ..	..	..	..	..	..	7,967
Housing .. .. .	33,160	35,810	36,080	37,200	50,400	465,359
Other .. .. .	..	..	..	..	..	5,976
Wheat bounty .. .. .	..	..	..	..	..	3,430
Loan (Qantas Empire Airways) ..	3,311	6,033	4,646	1,573	11,827	31,289
Loan (Australian National Airlines Commission) .. .. .	..	1,337	..	892	..	2,229
Mount Isa Railway Agreement ..	..	..	..	..	3,750	3,750
Total, Other Loans .. .. .	36,431	43,113	40,683	39,613	65,947	615,737
International Bank Dollar Loan(d) ..	14,565	7,492	..	..	..	137,645
Swiss Loan(e) .. .. .	..	..	..	..	..	11,722
Canadian Loan(f) .. .. .	..	..	..	..	..	6,459
Grand Total .. .. .	59,699	93,613	59,607	41,640	91,165	2,890,802

(a) Financial assistance to the States in connexion with war service land settlement. (b) Excludes amounts charged to War Loan Fund. (c) Includes administration and other public buildings, Australian Capital Territory. (d) Payment to National Debt Sinking Fund. (e) Payment to Swiss Loan Trust Account. (f) Payment to Canadian Loan Trust Account.

NOTE.—Minus sign (—) indicates excess of repayments to Loan Fund.

Information relating to the Commonwealth Government securities on issue is given in the Division, Government Securities on Issue, Commonwealth and States, of this chapter.

## STATE FINANCE

## § 1. General

1. **Functions of State Governments.**—In comparing the financial returns of the States, allowances must be made for the various functions discharged by the respective governments, and for local conditions in each case. Direct comparisons of the revenue, expenditure, and debt of the individual States are difficult, owing to the fact that functions which in

one State are assumed by the central government are in another delegated to local government or semi-governmental bodies which are vested with certain defined borrowing powers and whose financial transactions are not included with those of the central government. Care is needed, therefore, in making comparisons, and the particulars contained in this chapter should be read with those contained in Chapter XIX. Local Government. In many respects, moreover, the budgets of the Australian governments differ materially from those of most European countries, owing to the inclusion therein of the revenue and expenditure of departments concerned with rendering public services, such as railways, tramways, water supply, etc., which in other countries are often left to private enterprise.

**2. Accounts of State Governments.**—The various financial transactions of the States are in each case mainly concerned with one or other of three funds—the Consolidated Revenue Fund, the Trust Fund, and the Loan Fund. All revenue (except certain items paid into special funds) collected by a State is paid into its Consolidated Revenue Fund, from which payments are made under authority of an annual *Appropriation Act* passed by the legislature, or by a permanent appropriation under a special Act.

Figures in § 2 below relating to New South Wales represent the transactions of the Consolidated Revenue Fund and the business undertakings included in the annual budget papers. These undertakings are:—railways, tramways and omnibuses, and Sydney Harbour Trust Section of the Maritime Services Board. Adjustments have been made to the Budget figures, however, in order to eliminate duplications caused by inter-fund payments. Particulars for all other States relate to the transactions of the Consolidated Revenue Fund.

The Trust Fund comprises all moneys held in trust by the government, and includes such items as superannuation funds, road funds, insurance companies' deposits, etc.

The Loan Fund is debited with all loan moneys raised by the State, and credited with the expenditure therefrom on public works or other purposes.

**3. Inter-relation of Commonwealth and State Finances.**—A statement in some detail, covering the inter-relation of Commonwealth and State finances during the period from the inception of federation to the passing of the *Financial Agreement Act* 1928, was published in Official Year Book No. 22, pages 379–380. Changes in the financial relations between the Commonwealth and States since the passing of the *Financial Agreement Act* have been described in issues of the Official Year Book from year to year (*see also* pp. 955–6).

## § 2. State Consolidated Revenue Funds

### REVENUE

**1. General.**—The principal sources of State revenue are:—(a) taxation; (b) the business undertakings controlled by the State governments; (c) sale of and rental from crown lands; (d) interest on advances; (e) payments by the Commonwealth Government under the Financial Agreements, Special Grants and Financial Assistance Acts, etc.; (f) Commonwealth National Welfare Fund payments; and (g) miscellaneous sources, comprising fines, fees, etc.

Of these sources, that yielding the largest revenue to the Consolidated Revenue Funds for the States as a whole in the year 1961–62 was Commonwealth payments under financial assistance and other grants (40.2 per cent. of the total revenue). Next in magnitude was the group of business undertakings (30.1 per cent.), the principal contributors being the government railways and tramways, followed by taxation receipts (16.1 per cent.). More than one-quarter of the total State taxation collections are not paid into Consolidated Revenue Funds, however, but into special funds (*see para. 3 (ii) (b) following*). Of the remaining sources of revenue, interest (n.e.i.) constituted 3.8 per cent., land revenue 2.0 per cent., and National Welfare Fund payments 1.4 per cent.

**2. Revenue Received.**—The following table shows particulars of the total amounts, and the amounts per head of population, of Consolidated Revenue received by the several States during the years 1957–58 to 1961–62.



## STATE CONSOLIDATED REVENUE

Year	N.S.W.(a)	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
TOTAL REVENUE (£'000)							
1957-58 ..	231,510	142,336	87,955	66,342	57,054	19,986	605,183
1958-59 ..	239,769	151,248	99,007	68,030	60,068	21,837	639,959
1959-60 ..	262,533	168,310	103,103	76,077	64,388	25,099	699,510
1960-61 ..	282,364	185,101	108,817	81,979	69,333	27,795	755,389
1961-62 ..	295,612	196,309	117,325	89,102	74,926	31,293	804,567
PER HEAD OF POPULATION £ s. d.							
1957-58 ..	63 4 10	52 19 4	61 16 9	74 17 7	82 5 3	60 3 10	62 10 2
1958-59 ..	64 5 11	54 19 11	68 5 1	74 18 0	85 2 0	64 9 9	64 15 2
1959-60 ..	69 3 0	59 14 0	69 15 1	81 9 9	89 15 3	72 18 9	69 6 8
1960-61 ..	72 17 0	63 19 6	72 7 4	85 13 0	95 0 2	79 8 0	73 5 4
1961-62 ..	74 17 5	66 6 9	76 16 9	90 18 3	100 9 3	87 14 7	76 10 0

(a) See § 1, para. 2, p. 941, for transactions included.

3. Sources of Revenue.—(i) *General.* Classifying the revenue of the several States in the manner indicated in para. 1 above, particulars for the year 1961-62 were as follows.

## STATE CONSOLIDATED REVENUE: SOURCES, 1961-62

Source of revenue	N.S.W. (a)	Vic.	Q'land	S. Aust.	W. Aust.	Tas. (b)	Total.
TOTAL REVENUE (£'000)							
Taxation(c) .. ..	47,051	43,383	15,266	12,575	6,568	4,347	129,190
Business undertakings .. ..	107,540	53,225	35,072	24,449	22,038	112	242,436
Lands .. ..	5,623	3,269	3,916	781	1,642	554	15,785
Interest, n.e.i. .. ..	2,522	7,196	5,040	7,520	3,000	5,145	30,423
Commonwealth grants(d)—							
Financial assistance .. ..	99,249	73,015	43,730	33,225	30,085	12,836	292,140
Other(e) .. ..	5,495	3,927	5,456	3,100	6,636	6,332	30,946
Commonwealth National							
Welfare Fund payments(f)	6,460	1,147	2,863	833	50	305	11,658
Miscellaneous .. ..	21,672	11,147	5,982	6,619	4,907	1,662	51,989
Total .. ..	295,612	196,309	117,325	89,102	74,926	31,293	804,567
PER HEAD OF POPULATION (£ s. d.)							
Taxation(c) .. ..	11 18 4	14 13 2	10 0 0	12 16 7	8 16 2	12 3 9	12 5 8
Business undertakings .. ..	27 4 9	17 19 9	22 19 5	24 18 11	29 11 0	0 6 3	23 1 0
Lands .. ..	1 8 6	1 2 1	2 11 4	0 16 0	2 4 0	1 11 1	1 10 0
Interest, n.e.i. .. ..	0 12 9	2 8 8	3 6 0	7 13 5	4 0 5	14 8 6	2 17 10
Commonwealth grants(d)—							
Financial assistance .. ..	25 2 9	24 13 6	28 12 9	33 18 0	40 6 9	35 19 9	27 15 7
Other(e) .. ..	1 7 10	1 6 6	3 11 5	3 3 3	8 17 11	17 15 0	2 18 11
Commonwealth National							
Welfare Fund payments(f)	1 12 9	0 7 9	1 17 6	0 17 0	0 1 4	0 17 1	1 2 2
Miscellaneous .. ..	5 9 9	3 15 4	3 18 4	6 15 1	6 11 8	4 13 2	4 18 10
Total .. ..	74 17 5	66 6 9	76 16 9	90 18 3	100 9 3	87 14 7	76 10 0

(a) See § 1, para. 2, p. 941.

(b) Tasmanian transport services are under separate control of the Transport Commission.

(c) In all States, certain taxation collections are not paid into Consolidated Revenue Fund. For total collections see next page.

(d) Excludes Commonwealth payments paid to trust funds.

(e) Includes payments under Financial Agreement, special grants, financial assistance, grants to universities, etc.

(f) Consolidated Revenue Fund receipts only. Excludes payments to Trust Funds.

(ii) *Revenue from Taxation.* (a) *General.* In the tables on taxation collections in these paragraphs, the collections have been grouped according to the nature of the tax rather than the method of collection. For example, stamp duties on betting tickets and bookmakers' licences have been included under Racing instead of under Stamp duties and Licences respectively.

Prior to federation, customs and excise duties were the principal source of revenue from taxation. Thereafter, until the introduction of the uniform income tax scheme in 1942-43, the most productive State taxes were the various income taxes which, in 1941-42, included unemployment relief, State development and hospital taxes. From 1942-43 to 1958-59, the States were reimbursed by the Commonwealth for the revenue lost by the discontinuance of these taxes. Commencing with 1959-60, however, a new scheme for the payment of financial assistance to the States was instituted (for details see para. 10 (v), p. 933). Information relating to the State income taxes which were levied prior to 1942-43 may be found in earlier issues of the Official Year Book.

(b) *Net Collections, 1961-62.* The following tables show, for the year 1961-62, details of the collections in each State from the various types of tax in operation, irrespective of whether such moneys have been paid into the Consolidated Revenue Funds or not. For this reason, the particulars hereunder differ from those shown in the tables relating to the Consolidated Revenue Funds and present a comprehensive statement of all taxation collections by the government in each State.

**STATE REVENUE FROM TAXATION: TOTAL NET COLLECTIONS(a), 1961-62**  
(£'000)

Tax	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	Total
Motor—							
Registration fees and taxes ..	11,386	10,162	5,814	4,161	2,877	1,266	35,666
Drivers', etc., licences ..	1,478	520	320	388	313	118	3,137
Other ..	5,746	4,250	2,488	86	81	155	12,806
<i>Total</i> ..	<i>18,610</i>	<i>14,932</i>	<i>8,622</i>	<i>4,635</i>	<i>3,271</i>	<i>1,539</i>	<i>51,609</i>
Probate and succession duties ..	15,861	12,540	4,375	2,292	1,531	984	37,583
Stamp duties, n.e.i. ..	14,709	11,998	4,734	2,066	2,121	900	36,528
Land ..	9,285	7,406	1,762	2,388	1,272	547	22,660
Liquor ..	4,132	3,363	1,339	216	529	282	9,861
Lotteries ..	..	3,175	334	..	..	..	3,509
Racing ..	2,893	3,203	605	1,115	895	404	9,115
Entertainments ..	..	846	..	..	106	138	1,090
Poker machines licence fees ..	1,772	..	..	..	..	..	1,772
Licences, n.e.i. ..	171	356	207	102	98	10	944
Other ..	..	..	2,296	137	377	..	2,810
<i>Grand Total</i> ..	<i>67,433</i>	<i>57,819</i>	<i>24,274</i>	<i>12,951</i>	<i>10,200</i>	<i>4,804</i>	<i>177,481</i>

(a) From all sources of taxation irrespective of whether paid to Consolidated Revenue Fund or to other funds.

Of the total taxation collections detailed above, the following were paid into special funds.

**STATE REVENUE FROM TAXATION: PAYMENTS INTO SPECIAL FUNDS,**  
1961-62  
(£'000)

Tax	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	Total
Motor ..	18,610	14,008	6,903	..	3,255	284	43,060
Stamp duties, n.e.i. ..	..	200	..	..	..	..	200
Liquor ..	..	170	..	..	..	..	170
Racing ..	..	..	..	376	..	173	549
Poker machines licence fees ..	1,772	..	..	..	..	..	1,772
Other ..	..	58	2,105	..	377	..	2,540
<i>Total</i> ..	<i>20,382</i>	<i>14,436</i>	<i>9,008</i>	<i>376</i>	<i>3,632</i>	<i>457</i>	<i>48,291</i>

The table hereunder shows, for the year 1961-62, the proportions of collections under individual classes of tax to the total taxation revenue.

### STATE REVENUE FROM TAXATION: PROPORTIONS OF INDIVIDUAL TAXES TO TOTAL, 1961-62

(Per cent.)

Tax	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
Motor .. ..	27.60	25.82	35.52	35.79	32.07	32.02	29.08
Probate and succession duties	23.52	21.69	18.02	17.70	15.00	20.49	21.17
Stamp duties, n.e.i. ..	21.81	20.75	19.50	15.95	20.80	18.73	20.58
Land .. ..	13.77	12.81	7.26	18.44	12.47	11.38	12.77
Liquor .. ..	6.13	5.82	5.52	1.66	5.18	5.88	5.56
Lotteries .. ..	..	5.49	1.38	..	..	..	1.98
Racing .. ..	4.29	5.54	2.49	8.61	8.78	8.41	5.13
Entertainments .. ..	..	1.46	..	..	1.04	2.88	0.61
Poker machines licence fees	2.63	..	..	..	..	..	1.00
Licences, n.e.i. ..	0.25	0.62	0.85	0.79	0.96	0.21	0.53
Other .. ..	..	..	9.46	1.06	3.70	..	1.59
<b>Grand Total ..</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

(c) *Net Collections, 1957-58 to 1961-62.* The total amounts and the amounts per head raised from all sources of taxation by the several State governments, including amounts not paid into the Consolidated Revenue Fund, during the years 1957-58 to 1961-62, are shown in the following table.

### STATE REVENUE FROM TAXATION: TOTAL NET COLLECTIONS

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
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#### TOTAL NET COLLECTIONS

(£'000)

1957-58 ..	48,552	40,177	17,371	10,173	7,761	4,086	128,120
1958-59 ..	54,006	42,845	18,509	10,576	7,655	4,307	137,898
1959-60 ..	61,451	51,713	22,913	11,522	9,014	4,428	161,041
1960-61 ..	63,580	55,946	22,701	12,102	9,518	4,581	168,428
1961-62 ..	67,433	57,819	24,274	12,951	10,200	4,804	177,481

#### PER HEAD OF POPULATION

(£ s. d.)

1957-58 ..	13 5 3	14 19 4	12 4 3	11 9 8	11 3 10	12 6 1	13 4 8
1958-59 ..	14 9 8	15 11 7	12 15 2	11 12 10	10 16 11	12 14 5	13 19 1
1959-60 ..	16 3 9	18 6 10	15 10 0	12 6 10	12 11 4	12 17 4	15 19 3
1960-61 ..	16 8 1	19 6 9	15 1 11	12 12 10	13 0 10	13 1 9	16 6 9
1961-62 ..	17 1 7	19 10 9	15 18 0	13 4 3	13 13 6	13 9 5	16 17 6

The following table shows, for the years 1957-58 to 1961-62, the aggregate amounts collected by the several State governments under the various forms of State taxation, and includes amounts paid to funds other than Consolidated Revenue.

## STATE REVENUE FROM TAXATION: TOTAL NET COLLECTIONS(a)

(£'000)

Tax	1957-58	1958-59	1959-60	1960-61	1961-62
Motor .. .. .	37,586	41,973	46,527	48,926	51,609
Probate and succession duties .. .. .	25,680	27,177	33,991	33,878	37,583
Stamp duties, n.e.i. .. .. .	24,527	28,317	36,901	37,887	36,528
Land .. .. .	15,396	15,424	17,220	19,914	22,660
Liquor .. .. .	8,095	8,483	8,623	9,052	9,861
Lotteries .. .. .	3,602	3,434	3,444	3,610	3,509
Racing .. .. .	7,870	7,540	8,262	8,526	9,115
Entertainments .. .. .	1,982	1,846	1,609	1,421	1,090
Poker machines licence fees .. .. .	835	906	1,265	1,677	1,772
Licences n.e.i., and all other .. .. .	2,547	2,798	3,199	3,537	3,754
<b>Total .. .. .</b>	<b>128,120</b>	<b>137,898</b>	<b>161,041</b>	<b>168,428</b>	<b>177,481</b>

(a) From all sources of taxation irrespective of whether paid to Consolidated Revenue or to other funds.

Details of taxation collections paid into special funds and included in the table above are shown below.

## STATE REVENUE FROM TAXATION: PAYMENTS INTO SPECIAL FUNDS

(£'000)

Tax	1957-58	1958-59	1959-60	1960-61	1961-62
Motor .. .. .	31,659	35,814	39,604	41,131	43,060
Stamp duties, n.e.i. .. .. .	188	220	225	209	200
Land .. .. .	100	..	..	..	..
Liquor .. .. .	219	168	193	182	170
Lotteries .. .. .	60	31	10	..	..
Racing .. .. .	573	521	544	571	549
Poker machines licence fees .. .. .	835	906	1,265	1,677	1,772
Other .. .. .	1,510	1,741	2,093	2,407	2,540
<b>Total .. .. .</b>	<b>35,144</b>	<b>39,401</b>	<b>43,934</b>	<b>46,177</b>	<b>48,291</b>

(iii) *Business Undertakings.* (a) 1961-62. A very large proportion of State gross revenue is made up of receipts from business undertakings under the control of the governments. The most important of these are railways and tramways, harbour works, water supply and sewerage, and electricity supply, and, in addition, State batteries for the treatment of auriferous ores in Western Australia and various minor revenue-producing services rendered by the governments of all States are included. For the year 1961-62, the revenue from these sources was £242,436,000 or 30.1 per cent. of the revenue from all sources. Details of revenue are as follows.

## STATE REVENUE FROM BUSINESS UNDERTAKINGS, 1961-62

(£'000)

Source	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.(a)	Total
Railways(b) .. .. .	88,351	42,983	35,072	14,081	16,825	..	197,312
Tramways and omnibuses .. .. .	12,543	..	..	..	..	..	12,543
Harbours, rivers, lights .. .. .	6,646	(c) 692	..	2,580	752	..	10,670
Water supply, sewerage, irrigation and drainage .. .. .	..	4,989	..	7,241	4,153	..	16,383
Electricity supply .. .. .	..	3,931	..	..	..	..	3,931
Other .. .. .	..	630	..	547	308	112	1,597
<b>Total .. .. .</b>	<b>107,540</b>	<b>53,225</b>	<b>35,072</b>	<b>24,449</b>	<b>22,038</b>	<b>112</b>	<b>242,436</b>

(a) Tasmanian transport services are under the separate control of the Transport Commission.

(b) The following contributions to railways revenue from Consolidated Revenue Fund are excluded—New South Wales, £1,000,000; South Australia, £4,100,000. (c) Includes Harbour Trust Fund contribution, £450,000.

(b) 1957-58 to 1961-62. The total revenue from business undertakings and the revenue per head in each State are shown in the following table.

### STATE REVENUE FROM BUSINESS UNDERTAKINGS

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas. (a)	Total
TOTAL REVENUE (£'000)							
1957-58 ..	91,153	43,775	34,135	20,778	17,751	..	207,592
1958-59 ..	92,186	46,258	35,129	20,303	18,620	..	212,496
1959-60 ..	99,850	47,518	34,846	20,690	19,891	58	222,853
1960-61 ..	107,126	51,995	35,398	22,939	21,075	48	238,581
1961-62 ..	107,540	53,225	35,072	24,449	22,038	112	242,436
PER HEAD OF POPULATION (£ s. d.)							
1957-58 ..	24 18 0	16 5 10	24 0 0	23 9 0	25 11 10	..	21 8 10
1958-59 ..	24 14 5	16 16 5	24 4 4	22 7 0	26 7 7	..	21 10 1
1959-60 ..	26 6 0	16 17 1	23 11 6	22 3 3	27 14 7	0 3 4	22 1 9
1960-61 ..	27 12 9	17 19 5	23 10 10	23 19 4	28 17 7	0 2 9	23 2 10
1961-62 ..	27 4 9	17 19 9	22 19 5	24 18 11	29 11 0	0 6 3	23 1 0

(a) Tasmanian transport services are under the separate control of the Transport Commission.

In the table below, particulars of total State revenue from business undertakings for the various types of undertakings are shown for the years 1957-58 to 1961-62.

### STATE REVENUE FROM BUSINESS UNDERTAKINGS (£'000)

Source	1957-58	1958-59	1959-60	1960-61	1961-62
Railways, tramways and omnibuses .. ..	185,817	189,773	198,709	210,123	209,855
Harbour services .. ..	5,961	6,158	6,736	8,703	10,670
Water supply, sewerage, irrigation and drainage .. ..	11,835	12,315	12,922	14,995	16,383
Other .. ..	3,979	4,250	4,486	4,760	5,528
<b>Total .. ..</b>	<b>207,592</b>	<b>212,496</b>	<b>222,853</b>	<b>238,581</b>	<b>242,436</b>

For further information on the finances of the various types of business undertakings in the States, see Chapters XIV. Transport and Communication and XIX. Local Government of this Year Book.

(iv) *Lands.* The revenue from the sale and rental of Crown lands has, with few exceptions, been treated from the earliest times as forming part of the Consolidated Revenue Funds, and has been applied to meet ordinary expenses. The following table shows the revenue from sales and rentals of Crown lands for the year 1961-62.

### STATE LAND REVENUE, 1961-62 (£'000)

Source	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
Sales ..	666	265	..	155	58	14	1,158
Conditional purchases ..	207	..	..	10	136	..	353
Rentals(a) ..	3,402	671	3,636	237	320	47	8,313
Forestry ..	1,256	2,195	..	..	1,082	482	5,015
Other ..	92	138	280	379	46	11	946
<b>Total ..</b>	<b>5,623</b>	<b>3,269</b>	<b>3,916</b>	<b>781</b>	<b>1,642</b>	<b>554</b>	<b>15,785</b>

(a) Includes mining royalties, rents, etc.

The total land revenue for all States for the years 1957-58 to 1961-62 respectively was:—£15,050,000, £12,890,000, £14,324,000, £15,269,000 and £15,785,000.

(v) *Commonwealth Grants.* Commonwealth grants to the States represent a considerable proportion of the States' revenue. In 1961-62, the total amount (excluding sundry minor items) paid to the Consolidated Revenue Funds of the States was £323,086,000 (40.2 per cent.). Details were as follows:—contribution towards interest on States' debts under the Financial Agreement, £7,585,000; special grants to the States of Western Australia and Tasmania, £11,231,000; financial assistance, £292,140,000; additional assistance, £9,340,000; grants to universities, £2,370,000; and other grants, £420,000.

In addition to these, the States receive a number of other grants which are paid to trust funds. The main items in this class are the contribution to the sinking fund on States' debts (£6,739,000 in 1961-62) paid to the National Debt Sinking Fund, grants for Commonwealth Aid Roads (£50,000,000 in 1961-62), and grants for universities (£11,791,000 in 1961-62) paid to State trust funds.

More detailed information concerning Commonwealth grants to the States is given on pages 930-6.

(vi) *Commonwealth National Welfare Fund Payments.* The States also receive payments from the Commonwealth in respect of hospital and pharmaceutical benefits, nutrition of children and reimbursement of maintenance expenditure on tuberculosis sanatoria. These receipts are paid into Consolidated Revenue Funds or trust funds according to the varying accounting procedures in the States. In 1961-62, the total amount paid to State Consolidated Revenue Funds was £11,658,000 (1.4 per cent.). This amount was made up of hospital benefits, £4,068,000; pharmaceutical benefits, £2,178,000; milk for school children, £1,330,000; tuberculosis—reimbursement of maintenance expenditure, £4,035,000; other, £47,000.

(vii) *Interest and Miscellaneous.* In addition to the foregoing, there are in each State several miscellaneous sources of revenue, including such items as interest, fines, fees, etc. Interest, mainly from loans to local governing bodies, on public account balances, and for soldier land settlement amounted to £30,423,000 in 1961-62, while miscellaneous revenue, which includes fines of the courts and fees for services, amounted to £51,989,000 in 1961-62.

## EXPENDITURE

1. *General.*—The principal heads of State expenditure from Consolidated Revenue Funds are:—(a) interest, exchange and debt redemption charges in connexion with debt; (b) working expenses of business undertakings; (c) education; (d) health and charitable expenditure; (e) justice; (f) police; (g) penal establishments; and (h) all other expenditure, under which heading are included public works, lands and surveys, agriculture and forestry, legislative and general administration, pensions, and miscellaneous.

The working expenses of railways and tramways are the largest item of State government expenditure. In 1961-62, the working expenses of the railways, tramways and omnibuses were 24.8 per cent. of the total expenditure from the State Consolidated Revenue Funds; next in magnitude were education, 20.3 per cent.; debt charges, 17.0 per cent.; charitable, public health and hospitals, 14.1 per cent.; and law, order and public safety, 5.9 per cent.

As stated at the beginning of this division, figures relating to New South Wales represent the transactions of the Consolidated Revenue Fund and the business undertakings included in the annual budget papers. These undertakings are:—railways, tramways and omnibuses, and Sydney Harbour Trust Section of the Maritime Services Board. Adjustments have been made to the Budget figures, however, in order to eliminate duplications caused by inter-fund payments. Particulars for all other States relate to the transactions of the Consolidated Revenue Fund.

2. *Total Expenditure.*—The total expenditure from the Consolidated Revenue Funds of the several States and the expenditure per head of population during each of the years 1957-58 to 1961-62 are shown in the following table.

## STATE EXPENDITURE: CONSOLIDATED REVENUE FUNDS

Year	N.S.W.(a)	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
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## TOTAL EXPENDITURE

(£'000)

1957-58	..	231,464	145,549	89,470	66,742	58,177	20,798	612,200
1958-59	..	239,727	153,796	100,198	69,057	61,753	22,745	647,276
1959-60	..	262,463	167,997	103,267	76,389	65,794	26,131	702,041
1960-61	..	282,701	184,932	109,435	80,791	70,537	27,993	756,389
1961-62	..	298,745	196,298	117,215	88,596	75,890	31,651	808,395

## PER HEAD OF POPULATION

(£ s. d.)

1957-58	..	63	4	7	54	3	4	62	18	0	75	6	7	83	17	8	62	12	9	63	4	7
1958-59	..	64	5	9	55	18	5	69	1	6	76	0	6	87	9	8	67	3	4	65	10	0
1959-60	..	69	2	8	59	11	7	69	17	3	81	16	4	91	14	5	75	18	9	69	11	8
1960-61	..	72	18	9	63	18	3	72	15	6	84	8	2	96	13	2	79	19	3	73	7	3
1961-62	..	75	13	3	66	6	8	76	15	3	90	7	11	101	15	1	88	14	9	76	17	4

(a) See para. 1, p. 947, for transactions included.

3. Details of Expenditure.—(i) 1961-62. The following tables show the total expenditure and expenditure per head of population for each of the principal items.

## STATE EXPENDITURE: DETAILS, 1961-62

Particulars	N.S.W.(a)	Vic.	Q'land	S. Aust.	W. Aust.	Tas.(b)	Total
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## TOTAL EXPENDITURE

(£'000)

Debt (interest, exchange, debt redemption, etc.) ..	38,800	35,266	18,587	21,300	14,246	9,256	137,455
Railways ..	74,992	40,482	37,172	14,270	17,289	1,405	185,610
Tramways and omnibuses ..	13,570	..	..	..	642	360	14,572
Harbours and rivers, etc. ..	5,031	633	..	1,456	774	28	7,922
Water supply, sewerage irrigation and drainage ..	..	4,043	..	4,951	3,377	269	12,640
Other business and industrial undertakings ..	..	854	14	239	1,547	85	2,739
Education ..	63,603	44,721	19,207	16,952	12,923	6,523	163,929
Health and charitable ..	40,742	28,963	19,054	10,793	10,504	4,304	114,360
Justice ..	4,528	2,533	1,487	620	530	313	10,011
Police ..	10,905	8,255	4,825	2,660	2,081	1,078	29,804
Penal establishments ..	2,652	1,293	511	649	479	273	5,857
Public safety ..	748	22	529	115	179	79	1,672
All other expenditure ..	43,174	29,233	15,829	14,591	11,319	7,678	121,824
Total .. ..	298,745	196,298	117,215	88,596	75,890	31,651	808,395

(a) See para. 1, p. 947, for transactions included. (b) Tasmanian transport services are under the separate control of the Transport Commission. Figures shown for relevant items represent payments to the Commission.

STATE EXPENDITURE: DETAILS, 1961-62—*continued*

Particulars	N.S.W. (a)	Vic.	Q'land	S. Aust.	W. Aust.	Tas.(b)	Total
PER HEAD OF POPULATION (£ s. d.)							
Debt (interest, exchange, debt redemption, etc.)	9 16 6	11 18 4	12 3 5	21 14 8	19 2 0	25 19 0	13 1 4
Railways	18 19 11	13 13 7	24 6 11	14 11 2	23 3 7	3 18 10	17 12 11
Tramways and omnibuses	3 8 9	..	..	..	0 17 2	1 0 2	1 7 9
Harbours and rivers, etc.	1 5 6	0 4 3	..	1 9 9	1 0 9	0 1 6	0 15 1
Water supply, sewerage, irrigation and drainage	..	1 7 4	..	5 1 0	4 10 7	0 15 1	1 4 0
Other business and industrial undertakings	..	0 5 9	0 0 2	0 4 11	2 1 6	0 4 10	0 5 2
Education	16 2 2	15 2 3	12 11 7	17 5 11	17 6 7	18 5 9	15 11 9
Health and charitable	10 6 5	9 15 9	12 9 7	11 0 3	14 1 8	12 1 4	10 17 8
Justice	1 2 11	0 17 1	0 19 6	0 12 8	0 14 2	0 17 7	0 19 0
Police	2 15 3	2 15 10	3 3 2	2 14 3	2 15 10	3 0 5	2 16 8
Penal establishments	0 13 5	0 8 9	0 6 8	0 13 3	0 12 10	0 15 4	0 11 2
Public safety	0 3 9	0 0 2	0 6 11	0 2 4	0 4 10	0 4 5	0 3 2
All other expenditure	10 18 8	9 17 7	10 7 4	14 17 9	15 3 7	21 10 6	11 11 8
<b>Total</b>	<b>75 13 3</b>	<b>66 6 8</b>	<b>76 15 3</b>	<b>90 7 11</b>	<b>101 15 1</b>	<b>88 14 9</b>	<b>76 17 4</b>

(a) See para. 1, p. 947, for transactions included.

(b) Tasmanian transport services are under the separate control of the Transport Commission. Figures shown for relevant items represent payments to the Commission.

For further information on the finances of the various types of business undertakings in the States, see Chapters XIV. Transport and Communication and XIX. Local Government of this Year Book.

(ii) 1957-58 to 1961-62. Combined expenditure by the several States for these years on each of the principal items is shown in the following table.

STATE EXPENDITURE  
(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Debt (interest, exchange, debt redemption, etc.)	97,123	105,051	116,850	125,217	137,455
Railways, tramways and omnibuses (working expenses)	185,083	182,958	193,282	198,779	200,182
Harbours and rivers, etc.	4,537	4,354	4,786	6,313	7,922
Water supply, sewerage, irrigation and drainage	9,498	9,500	10,976	11,211	12,640
Other business and industrial undertakings	4,701	3,977	2,688	2,764	2,739
Education	104,702	116,546	130,641	149,348	163,929
Health and charitable	84,449	92,057	99,406	105,994	114,360
Justice	7,099	7,602	8,435	9,449	10,011
Police	22,276	23,888	25,904	28,139	29,804
Penal establishments	4,084	4,340	4,676	5,311	5,857
Public safety	1,118	1,371	1,262	1,418	1,672
All other expenditure	87,530	95,632	103,135	112,446	121,824
<b>Total</b>	<b>612,200</b>	<b>647,276</b>	<b>702,041</b>	<b>756,389</b>	<b>808,395</b>



## SURPLUS REVENUE

The following table shows for each of the years 1957-58 to 1961-62 the total amount and amount per head of population of the surplus or deficit of each State.

## STATE SURPLUS REVENUE

Year	N.S.W.(a)	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
TOTAL AMOUNT							
(£'000)							
1957-58 ..	46	-3,213	-1,515	- 400	-1,123	- 812	-7,017
1958-59 ..	42	-2,548	-1,191	-1,027	-1,685	- 908	-7,317
1959-60 ..	70	313	- 164	- 312	-1,406	-1,032	-2,531
1960-61 ..	- 337	169	- 618	1,188	-1,204	- 198	-1,000
1961-62 ..	-3,133	11	110	506	- 964	- 358	-3,828

## PER HEAD OF POPULATION

(£ s. d.)

1957-58 ..	0	0	3	-1	4	0	-1	1	3	-0	9	0	-1	12	5	-2	8	11	-0	14	5
1958-59 ..	0	0	2	-0	18	6	-0	16	5	-1	2	6	-2	7	8	-2	13	7	-0	14	10
1959-60 ..	0	0	4	0	2	5	-0	2	2	-0	6	7	-1	19	2	-3	0	0	-0	5	0
1960-61 ..	-0	1	9	0	1	3	-0	8	2	1	4	10	-1	13	0	-0	11	3	-0	1	11
1961-62 ..	-0	15	10	0	0	1	0	1	6	0	10	4	-1	5	10	-1	0	2	-0	7	6

(a) See para. 1, p. 947.

NOTE.—Minus sign (—) indicates deficit.

## § 3. State Trust Funds

In addition to the moneys received as revenue and paid to the credit of the Consolidated Revenue Funds, considerable sums are held in trust for various purposes by the State governments. The balances of trust funds held at 30th June for each of the years 1958 to 1962 were as follows.

## STATE TRUST FUND BALANCES

(£'000)

At 30th June—	N.S.W.(a)	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
1958 .. ..	51,776	34,415	53,921	5,650	14,565	1,560	161,887
1959 .. ..	55,093	38,635	53,828	5,057	16,569	2,148	171,330
1960 .. ..	62,686	44,183	56,022	5,742	18,102	1,930	188,665
1961 .. ..	65,186	50,285	59,569	6,701	20,706	1,265	203,712
1962 .. ..	69,944	52,842	65,541	6,187	19,540	2,143	216,197

(a) Special Deposits Account and Special Accounts.

## § 4. State Loan Funds

1. *General.*—State public borrowing is due mainly to the fact that the State governments, in addition to ordinary administrative duties, undertake functions such as the construction and operation of the railway systems, which in other countries are usually entrusted to local authorities or left to private enterprise. Loan moneys have also been largely used for improvements to harbours and rivers, and for the construction of roads, water supply and sewerage works. The State debt thus consists chiefly of moneys raised and expended with the object of assisting the development of the resources of the country, and is to a very large extent represented by tangible assets.

Statements relating to "gross" loan expenditure are shown below. The gross expenditure represents the amounts disbursed during each year. Details of "net" loan expenditure, i.e., gross expenditure less any credits to the Loan Fund during the year on account of repayments of advances to local governing bodies, settlers, etc., the sale of assets, and transfers from other funds, may be found in the bulletin *Finance, Part I.—Public and Private Finance*. Such moneys are credited to the Loan Fund in the year of repayment irrespective of when the advance was made.

2. *Gross Loan Expenditure.*—(i) 1961–62. Particulars of gross loan expenditure on works, services, etc., are shown in the following table.

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC., 1961–62  
(£'000)

Particulars	N.S.W.	Vic.(a)	Q'land	S. Aust.	W. Aust.	Tas.	Total
<b>Public Works and Services—</b>							
Railways .. .. .	8,750	7,664	6,035	2,448	3,475	185	28,557
Tramways and omnibuses .. .. .	70				307	59	436
Roads .. .. .	959	790	1,232	200			
Bridges .. .. .		390					
Harbours and rivers .. .. .	4,335	417	—4	1,447	1,591	2,034	13,391
Lights and lighthouses .. .. .							
Water supply .. .. .	8,868	7,956	1,649	9,004	3,550	872	35,195
Sewerage .. .. .		412		2,099	785		
Electricity supply .. .. .	8,200	7,000	19	2,300	180	6,814	24,513
Gas supply .. .. .		70					70
Public buildings .. .. .	26,209	22,638	9,223	8,609	6,303	3,671	76,653
Loans and grants to local bodies .. .. .	280	666	3,924		302	180	5,352
Housing(b) .. .. .	400	710	2,690	800	1,351	62	6,013
Other public works, etc. .. .. .	177	194		168	609	590	1,738
<b>Primary Production—</b>							
Soldier settlement .. .. .	99	296	—349				46
Land for settlement .. .. .	809	1,524	301	19		150	2,803
Advances to settlers .. .. .		39		560		329	928
Water conservation .. .. .	6,258		2,430	149			
Irrigation and drainage .. .. .				814	988		10,639
Vermin-proof fencing .. .. .		1	30	(c)			31
Agriculture .. .. .	200		2		296		498
Agricultural Bank .. .. .			1,339		229		1,568
Forestry .. .. .	600	915	2,058	1,204	125	350	5,252
Mines and mineral resources .. .. .	736	79	90	532	121		1,558
Other .. .. .	570	862		21	5	26	1,484
<b>Other Purposes .. .. .</b>		(d) 794	19	281	556	773	2,423
<b>Total, Public Works, Services, etc. .. .. .</b>	<b>67,520</b>	<b>53,417</b>	<b>30,688</b>	<b>30,655</b>	<b>20,773</b>	<b>16,095</b>	<b>219,148</b>
<b>Per head of population .. .. .</b>	<b>£17 2 0</b>	<b>£18 1 0</b>	<b>£20 1 11</b>	<b>£31 5 7</b>	<b>£27 17 1</b>	<b>£45 2 6</b>	<b>£20 16 9</b>

(a) Expenditure from loan funds and on account of loans; includes expenditure from loan funds, from Treasurer's Advance Account and from State Loans Repayment Fund. (b) Excludes expenditure from Commonwealth loans under Commonwealth-State Housing Agreement. (c) Included in item Advances to settlers. (d) Includes Rural Finance Corporation, for advances to rural industries, £661,000.

NOTE.—The negative amounts shown for Queensland represent transfers of liability on account of expenditure incurred in earlier years. The amounts involved have been debited against the item Loans and grants to local bodies, and included in the expenditure shown for 1961–62.

(ii) 1957-58 to 1961-62. Particulars of gross loan expenditure on works, etc., for these years are shown in the following table.

### STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC.

Year	N.S.W.	Vic.(a)	Q'land	S. Aust.	W. Aust.	Tas.	Total
GROSS LOAN EXPENDITURE (£'000)							
1957-58 ..	57,597	41,338	23,190	24,772	15,914	10,882	173,693
1958-59 ..	60,052	44,421	26,531	27,262	17,689	12,859	188,814
1959-60 ..	63,651	49,491	29,362	28,245	18,016	14,470	203,235
1960-61 ..	65,182	51,705	29,686	31,385	19,353	16,767	214,078
1961-62 ..	67,520	53,417	30,688	30,655	20,773	16,095	219,148
PER HEAD OF POPULATION (£ s. d.)							
1957-58 ..	15 14 8	15 7 8	16 6 1	27 19 2	22 18 11	32 15 5	17 18 10
1958-59 ..	16 2 1	16 3 1	18 5 10	30 0 3	25 1 2	37 19 6	19 2 1
1959-60 ..	16 15 4	17 11 0	19 17 4	30 5 1	25 2 4	42 1 0	20 2 10
1960-61 ..	16 16 4	17 17 5	19 14 10	32 15 10	26 10 5	47 17 11	20 15 3
1961-62 ..	17 2 0	18 1 0	20 1 11	31 5 7	27 17 1	45 2 6	20 16 9

(a) See footnote (a) to previous table.

The tables above do not include particulars of expenditure on loan discounts and flotations, the funding of deficits, the retirement of treasury bills, and similar items of a nature other than works, services, etc. Summaries of the gross and net expenditure and repayments in respect of all loan purposes for the years 1959-60 to 1961-62 are shown in the next paragraph.

3. **Total Loan Expenditure.**—The following table shows particulars, in summary form, of the total loan expenditure in each State during each of the years, 1959-60 to 1961-62.

### STATE LOAN EXPENDITURE: SUMMARY (£'000)

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
1959-60							
Works and services—							
Gross expenditure ..	63,651	49,491	29,362	28,245	18,016	14,470	203,235
Net expenditure ..	57,966	43,674	22,223	25,149	16,252	13,208	178,472
Repayments ..	5,685	5,817	7,139	3,096	1,764	1,262	24,763
Other than works, etc.(a)—							
Gross expenditure ..	—1,166	1,670	..	40	1,082	95	1,721
Net expenditure ..	—1,166	1,670	580	..	1,017	14	2,115
Repayments ..	..	..	—580	40	(b) 65	81	—394
Total Loan Expenditure—							
Gross ..	62,485	51,161	29,362	28,285	19,098	14,565	204,956
Net ..	56,800	45,344	22,803	25,149	17,269	13,222	180,587
Repayments ..	5,685	5,817	6,559	3,136	1,829	1,343	24,369
1960-61							
Works and services—							
Gross expenditure ..	65,182	51,705	29,686	31,385	19,353	16,767	214,078
Net expenditure ..	60,076	48,588	23,853	26,543	17,709	15,185	191,954
Repayments ..	5,106	3,117	5,833	4,842	1,644	1,582	22,124
Other than works, etc.(a)—							
Gross expenditure ..	—2,739	—2,331	..	71	—107	166	—4,940
Net expenditure ..	—2,739	—2,331	650	..	—174	120	—4,474
Repayments ..	..	..	—650	71	(b) 67	46	—466
Total Loan Expenditure—							
Gross ..	62,443	49,374	29,686	31,456	19,246	16,933	209,138
Net ..	57,337	46,257	24,503	26,543	17,535	15,305	187,480
Repayments ..	5,106	3,117	5,183	4,913	1,711	1,628	21,658

For footnotes, see next page.

STATE LOAN EXPENDITURE: SUMMARY—*continued*

(£'000)

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
1961-62							
Works and services—							
Gross expenditure ..	67,520	53,417	30,688	30,655	20,773	16,095	219,148
Net expenditure ..	62,198	50,461	24,831	26,282	18,876	14,950	197,598
Repayments ..	5,322	2,956	5,857	4,373	1,897	1,145	21,550
Other than works, etc.(a)—							
Gross expenditure ..	-1,410	-1,144	..	33	181	165	-2,175
Net expenditure ..	-1,410	-1,144	670	-695	128	94	-2,357
Repayments ..	..	..	-670	728	(b) 53	71	182
Total Loan Expenditure—							
Gross ..	66,110	52,273	30,688	30,688	20,954	16,260	216,973
Net ..	60,788	49,317	25,501	25,587	19,004	15,044	195,241
Repayments ..	5,322	2,956	5,187	5,101	1,950	1,216	21,732

(a) Includes exchange, discounts and flotation expenses, revenue and general cash deficits.

(b) From Consolidated Revenue Fund.

NOTE.—Minus sign (—) indicates excess of repayments to loan fund.

Information relating to the government securities on issue on behalf of the States is given in the division on Government Securities on Issue: Commonwealth and States (*see p. 957*).

## COMMONWEALTH AND STATE FINANCE

1. *Revenue and Expenditure.*—(i) *Consolidated Revenue Funds.* The following table shows the aggregate revenue and expenditure of the Consolidated Revenue Funds of the Commonwealth and States for each of the years 1957-58 to 1961-62. In the table, the combined Commonwealth and State totals have been adjusted to exclude major duplications, but the separate Commonwealth and State figures are as shown in other divisions of this chapter. The items excluded from the total figures are:—payments made by the Commonwealth to the States and included in the State Consolidated Revenue Funds on account of tax reimbursements up to 1958-59, and financial assistance grants in 1959-60 to 1961-62, interest under the Financial Agreement, special grants, special financial assistance, coal strike emergency grants, price control reimbursements, grants to universities, cattle tick control, *Tuberculosis Act* capital expenditure, National Welfare Fund payments, and estimated payments of pay-roll tax by the States to the Commonwealth. There are other relatively minor payments for which adjustments have not been made, and the adjusted figures are therefore still slightly overstated.

## COMMONWEALTH AND STATES: REVENUE AND EXPENDITURE

Year ended 30th June—	Revenue			Expenditure		
	Common- wealth	States	Total	Common- wealth	States	Total
	£'000.	£'000.	£m.	£'000.	£'000.	£m.
1958 .. ..	1,323,771	605,183	1,690.7	1,323,771	612,200	1,697.7
1959 .. ..	1,296,050	639,959	1,682.9	1,296,050	647,276	1,690.3
1960 .. ..	1,438,286	699,510	1,857.3	1,438,286	702,041	1,859.8
1961 .. ..	1,638,279	755,389	2,085.3	1,638,279	756,389	2,086.3
1962 .. ..	1,641,542	804,567	2,102.6	1,641,542	808,395	2,106.4

(ii) *Loan Expenditure.* The aggregate gross loan expenditures of the Commonwealth and States on works and services for the years 1957-58 to 1961-62 are shown in the following table.

**COMMONWEALTH AND STATE GROSS LOAN EXPENDITURE: WORKS AND SERVICES(a)**  
(£'000)

Gross loan expenditure	1957-58	1958-59	1959-60	1960-61	1961-62
Commonwealth(b) .. ..	45,174	86,190	59,650	41,692	91,195
State .. ..	173,693	188,814	203,235	214,078	219,148
<b>Total .. ..</b>	<b>218,867</b>	<b>275,004</b>	<b>262,885</b>	<b>255,770</b>	<b>310,343</b>

(a) Excludes expenditure on loan flotations, funding deficits, etc. (b) Includes expenditure on defence, War (1939-45) and repatriation services. Excludes payments to the National Debt Sinking Fund from proceeds of the loan from the International Bank for Reconstruction and Development, payments to the Swiss Loan Trust account from proceeds of the Swiss Loan, and payments to the Canadian Loan Trust account from proceeds of the Canadian Loan.

2. Taxation.—The following table shows the combined Commonwealth and State taxation collections, and the amount per head of population, for the years 1957-58 to 1961-62. Taxation collections by the State governments which are not paid into the Consolidated Revenue Funds are included.

**COMMONWEALTH AND STATE TAXATION: TOTAL NET COLLECTIONS(a)**

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
<b>NET COLLECTIONS</b> (£'000)					
Customs and excise duties .. ..	303,051	307,925	336,492	359,194	350,805
Sales tax .. ..	137,777	143,617	164,185	173,040	148,824
Land tax .. ..	15,407	15,424	17,220	19,914	22,660
Pay-roll tax .. ..	48,552	49,619	55,162	61,260	60,972
Income taxes .. ..	650,452	608,675	671,302	807,273	828,150
Probate and succession duties .. ..	39,477	40,486	47,744	48,685	54,612
Stamp duties, n.e.i. .. ..	24,527	28,317	36,901	37,887	36,528
Motor taxes .. ..	37,586	41,973	46,527	48,926	51,609
Liquor taxes .. ..	8,095	8,483	8,623	9,052	9,861
Racing .. ..	7,870	7,540	8,262	8,526	9,115
Entertainments tax .. ..	1,982	1,846	1,609	1,421	1,090
Licences n.e.i., and other taxes .. ..	14,877	17,291	16,804	18,489	19,779
<b>Total—</b>					
Commonwealth .. ..	1,161,533	1,133,298	1,249,790	1,425,239	1,416,524
States .. ..	128,120	137,898	161,041	168,428	177,481
<b>Grand Total .. ..</b>	<b>1,289,653</b>	<b>1,271,196</b>	<b>1,410,831</b>	<b>1,593,667</b>	<b>1,594,005</b>

**PER HEAD OF POPULATION**  
(£ s. d.)

Customs and excise duties .. ..	31 2 2	30 19 1	33 2 2	34 11 3	33 1 6
Sales tax .. ..	14 2 11	14 8 9	16 3 1	16 13 0	14 0 8
Land tax .. ..	1 11 8	1 11 0	1 13 11	1 18 4	2 2 9
Pay-roll tax .. ..	4 19 8	4 19 9	5 8 7	5 17 11	5 15 0
Income taxes .. ..	66 15 3	61 3 8	66 0 11	77 13 10	78 1 8
Probate and succession duties .. ..	4 1 0	4 1 5	4 13 11	4 13 9	5 3 0
Stamp duties, n.e.i. .. ..	2 10 4	2 16 11	3 12 7	3 12 11	3 8 11
Motor taxes .. ..	3 17 2	4 4 5	4 11 6	4 14 2	4 17 4
Liquor taxes .. ..	0 16 7	0 17 0	0 17 0	0 17 5	0 18 7
Racing .. ..	0 16 2	0 15 2	0 16 3	0 16 5	0 17 2
Entertainments tax .. ..	0 4 1	0 3 8	0 3 2	0 2 8	0 2 0
Licences n.e.i., and other taxes .. ..	1 10 6	1 14 9	1 13 1	1 15 7	1 17 3
<b>Total—</b>					
Commonwealth .. ..	119 4 6	113 18 4	122 19 3	137 3 1	133 10 11
States .. ..	13 4 8	13 19 1	15 19 3	16 6 9	16 17 6
<b>Grand Total .. ..</b>	<b>132 7 6</b>	<b>127 15 7</b>	<b>138 16 2</b>	<b>153 7 3</b>	<b>150 5 10</b>

(a) For separate details of Commonwealth and State taxation collections, see pp. 915-22 and 943-5.

**GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES**

**NOTE.**—For the following reasons, Government Securities on Issue, as set out in the tables in this division, may not be aggregated without adjustment to indicate what is sometimes described as the “public debt” or “net public debt” of the Commonwealth and State governments.

There are forms of debt not evidenced by the issue of securities. Again, some of the securities included in the tables are held by the governments themselves. For example, a State government may hold temporarily, or even for long periods, securities issued by the Commonwealth government. The Commonwealth government itself, through such institutions as the National Debt Commission, or through the Trust Funds, holds large investments in securities issued, either directly by itself or on behalf of the States. In addition, some of the securities issued on behalf of the States and held by the Commonwealth government represent the proceeds of overseas loans, securities for which were issued directly by the Commonwealth government. From the point of view of the aggregate net debt of the Commonwealth and the States, it would thus involve duplication if the sum of the securities on issue were to be regarded as representing the “net public debt”.

**§ 1. General**

Under the Financial Agreement between the Commonwealth and the States in 1927, the Commonwealth government accepted responsibility for the securities of the State governments then on issue, and was empowered to arrange for all future borrowings on behalf of the Commonwealth and the States and to issue Commonwealth securities for all money borrowed. The Commonwealth is reimbursed by the States for interest, exchange, etc., paid on their behalf, and the securities are redeemed from the National Debt Sinking Fund to which both the Commonwealth and State governments make contributions.

In the statistical tables relating to government securities, details of securities on issue, annual interest liability and average rate of interest liability, except in § 3, paras. 3 and 4, are shown in the currencies in which they are repayable or payable respectively. Australian currency equivalents for overseas loans have been calculated using the rates of exchange ruling at 30th June in each year shown. Rates of exchange to £A. at 30th June, 1962, were as follows:—£Sterling, 0.8000; United States dollars, 2.2400; Canadian dollars, 2.4216; Swiss francs, 9.7955; Netherlands guilders, 8.1088; German Deutsche marks, 8.9600.

**§ 2. The Financial Agreement between the Commonwealth and the States**

1. **General.**—Full details of the Financial Agreement between the Commonwealth and the States are given in earlier issues of the Official Year Book (*see* No. 37, pp. 685–90). In this issue, a summary of the main provisions only is given.

2. **Australian Loan Council.**—The Australian Loan Council was set up to co-ordinate the borrowings of the Commonwealth and the States. It consists of the Prime Minister of the Commonwealth, or another Minister nominated by him in writing, as Chairman, and the State Premiers, or Ministers nominated by them in writing. Each year, the Loan Council examines the loan programmes of the Commonwealth and the States and determines the total amount to be borrowed during the year. Borrowings by the Commonwealth for defence purposes are not subject to decisions of the Loan Council.

3. **Loan Raisings for the Commonwealth and States.**—Subject to the decisions of the Loan Council, the Commonwealth arranges for all borrowings for or on behalf of the Commonwealth or any State, and for all conversions, renewals, redemptions, and consolidations of the securities issued on behalf of the Commonwealth and of the States.

If the Loan Council unanimously decides, however, a State may borrow outside Australia in its own name, and may issue securities for the amount so borrowed. The Commonwealth then guarantees that the State will fulfil all its obligations to bond-holders in respect of the money so borrowed, and the money is deemed to be borrowed by the Commonwealth for and on behalf of the State.

Subject to any maximum limits decided upon by the Loan Council for interest, brokerage, discount and other charges, the Commonwealth or any State may borrow within its own territory, for any purpose, money from any authorities, bodies, funds or institutions (including savings banks) constituted or established under Commonwealth or State law or practice; borrow from the public by means of counter sales of securities; and use any available public moneys.

However, any securities issued for money so borrowed or used must be Commonwealth securities on terms approved by the Loan Council.

4. **Taking over of State Government Securities.**—The Commonwealth took over on 1st July, 1929, securities issued by each State existing on 30th June, 1927; and all other

securities of each State existing on 1st July, 1929, for money borrowed by that State deemed by the Agreement to be money borrowed by the Commonwealth for and on behalf of the State; and in respect of these securities assumed, as between the Commonwealth and the States, the liabilities of the States to bond-holders.

5. **Transferred Properties.**—In relation to State properties transferred to the Commonwealth under Section 85 of the Constitution, the States, as from 1st July, 1929, were discharged from any liability in respect of principal, interest or redemption on so much of the securities bearing interest at 5 per cent. per annum taken over by the Commonwealth as amounted to the agreed value of these properties, namely £10,924,323.

6. **Payment of Interest.**—For a period of 58 years from 1st July, 1927, the Commonwealth agreed to contribute the sum of £7,584,912 each year towards the interest payable on the State securities. The balance of the interest payable on the State securities is paid to the Commonwealth by the States.

7. **Sinking Fund.**—(i) *State Securities existing at 30th June, 1927.* A sinking fund at the rate of 7s. 6d. per annum for each £100 of the securities of the States existing on 30th June, 1927, and conversions thereof, was established under the terms of the Agreement. The Commonwealth contributes annually from revenue 2s. 6d. per £100 on the securities of the States existing at 30th June, 1927, and each State contributes annually 5s. per £100 on its securities at 30th June, 1927. The payments of the Commonwealth and of all States except New South Wales will continue for a period of 58 years from 1st July, 1927, and those of New South Wales for a similar period from 1st July, 1928.

(ii) *New Borrowings.* On new borrowings after 1st July, 1927 (except those for redemptions or conversions, or funding a State deficit), a sinking fund at the rate of 10s. per £100 per annum was established, and the State and the Commonwealth contribute from revenue equal shares for a period of 53 years from the date of raising. (New South Wales did not commence sinking fund contributions in respect of new loans raised in the financial year 1927–28 until 1st July, 1928.)

(iii) *Loans raised to meet a Revenue Deficit.* In respect of any loan (except any of the loans referred to in sub-para. (iv) below) raised by a State after 30th June, 1927, to meet a revenue deficit accruing after that date, no sinking fund contribution is made by the Commonwealth, but the State makes a sinking fund contribution at the rate of not less than 4 per cent. per annum of the loan for a period sufficient to provide for the redemption of the loan, the contributions being deemed to accumulate at the rate of 4½ per cent. per annum compound interest.

(iv) *Loans raised to meet Revenue Deficits between 30th June, 1927, and 1st July, 1935.* Special contributions are payable in respect of loans raised by a State or by the Commonwealth on behalf of a State, on the security of Commonwealth Treasury Bills, to meet a revenue deficit which accrued after 30th June, 1927, and before 1st July, 1935. Details of these contributions are given in Official Year Book No. 37, pages 688–9.

(v) *National Debt Commission.* The sinking funds established are controlled by the National Debt Commission, which may arrange with any State to act as its agent in connexion with payments due to bond-holders. Except where the conditions relating to sinking funds, redemption funds, and funds of a like nature held by a State on 30th June, 1929, precluded such transfer, all such funds were transferred to the National Debt Commission.

(vi) *Operation of Sinking Fund.* Sinking fund contributions made in respect of the securities of a State, and funds of that State transferred to the National Debt Commission, are not accumulated, but must be applied, whenever expedient, to the redemption and repurchase of loan securities. When such a loan security is repurchased or redeemed by the National Debt Commission, it is cancelled, and the State, in addition to sinking fund contributions otherwise payable, pays a further annual sinking fund contribution at the rate of 4½ per cent. on the face value of the cancelled security for the balance of the period during which the original contribution is payable in respect of that debt.

(vii) *Oversea Securities on Issue.* Sinking fund contributions in respect of overseas securities shall be calculated at the mint par of exchange prevailing on 1st July, 1927.

8. **Borrowing by Semi-Governmental Authorities.**—It was realized from the inception of the Loan Council that, in the interests of co-ordinated borrowing, the Council should be advised of the borrowing of large amounts by semi-governmental authorities. In May, 1936, all resolutions passed by the Loan Council in connexion with semi-governmental borrowings were consolidated into one set of rules, which superseded all previous resolutions. This set of rules provides, *inter alia*, for the submission of annual loan programmes in respect of semi-governmental authorities proposing to raise £100,000 or more in a year, for the consideration of such programmes in conjunction with the loan programme of the government concerned, and for the fixing of the terms of individual semi-governmental loans coming within the scope of the annual programme.

## § 3. Government Securities on Issue: Commonwealth and States

1. Government Securities on Issue, Annual Interest Payable and Average Rate of Interest, 30th June, 1962.—In the following tables, details are given of government securities on issue on account of the Commonwealth and States, annual interest payable and average rate of interest at 30th June, 1962.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES,  
30th JUNE, 1962

Particulars	Currency in which repayable							Total— Aus- tralian currency equiva- lent(a)
	Aus- tralian currency	Sterling	United States dollars	Can- adian dollars	Swiss francs	Nether- lands guilders	German Deutsche marks	
	£A.'000	£Stg.'000	U.S. \$ '000	Can. \$ '000	Sw. fr. '000	f.'000	D.M. '000	£A.'000
For Commonwealth purposes—								
War .. .. .	837,044	13,188						853,530
Works .. .. .	443,430	62,000	315,617	51,627	209,658	7,150	6,355	706,145
<i>Total, Commonwealth</i> .. .. .	<i>1,280,474</i>	<i>75,188</i>	<i>315,617</i>	<i>51,627</i>	<i>209,658</i>	<i>7,150</i>	<i>6,355</i>	<i>1,559,675</i>
On account of States—								
New South Wales .. .. .	850,495	111,274	75,366	5,278	15,833	10,383	..	1,028,308
Victoria .. .. .	623,203	41,105	39,434	4,244	12,732	8,346	..	696,270
Queensland .. .. .	311,654	44,474	30,425	2,130	6,391	4,250	..	382,885
South Australia .. .. .	340,008	31,570	19,512	2,258	6,774	4,191	..	390,323
Western Australia .. .. .	243,425	30,412	14,273	1,621	4,863	3,264	..	289,380
Tasmania .. .. .	179,915	7,326	8,691	1,234	3,703	2,416	..	194,139
<i>Total, States</i> .. .. .	<i>2,548,700</i>	<i>266,161</i>	<i>187,701</i>	<i>16,765</i>	<i>50,296</i>	<i>32,850</i>	<i>..</i>	<i>2,981,305</i>
Total, Commonwealth and States—								
Stock and bonds .. .. .	3,343,916	337,108	267,364	32,386	240,000	40,000	..	3,927,468
Treasury Bills, Internal .. .. .	240,900	..	..	..	..	..	..	240,900
Treasury Bills, Public .. .. .	208,000	..	..	..	..	..	..	208,000
International Bank Loans .. .. .	..	..	191,664	36,006	19,954	..	6,355	103,179
Commonwealth notes .. .. .	..	..	44,290	..	..	..	..	19,773
Debentures .. .. .	31,465	..	..	..	..	..	..	31,465
Balance of securities of States taken over by Commonwealth and still represented by State securities .. .. .	..	4,241	..	..	..	..	..	5,302
Other .. .. .	4,893	..	..	..	..	..	..	4,893
<b>Grand Total—</b>								
Currencies in which Re- payable .. .. .	3,829,174	341,349	503,318	68,392	259,954	40,000	6,355	..
Australian Currency Equi- valents (a) .. .. .	3,829,174	426,687	224,696	28,243	26,538	4,933	709	4,540,980

(a) For rates of exchange to £A. ruling at 30th June, 1962, see p. 955.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES—  
ANNUAL INTEREST PAYABLE, 30th JUNE, 1962

Particulars	Currency in which payable							Total— Aus- tralian currency equiva- lent(a)
	Aus- tralian currency	Sterling	United States dollars	Can- adian dollars	Swiss francs	Nether- lands guilders	German Deutsche marks	
	£A.'000	£Stg.'000	U.S. \$ '000	Can. \$ '000	Sw. fr. '000	f.'000	D.M. '000	A.'000
For Commonwealth purposes—								
War .. .. .	24,875	454						25,442
Works .. .. .	17,770	2,932	15,053	2,380	8,675	357	302	30,103
<i>Total, Commonwealth</i> .. .. .	<i>42,645</i>	<i>3,386</i>	<i>15,053</i>	<i>2,380</i>	<i>8,675</i>	<i>357</i>	<i>302</i>	<i>55,545</i>
On account of States—								
New South Wales .. .. .	37,333	4,676	3,586	304	712	519	..	45,042
Victoria .. .. .	28,014	1,701	1,926	244	573	417	..	31,211
Queensland .. .. .	13,595	1,610	1,393	122	287	213	..	16,335
South Australia .. .. .	15,218	1,067	949	130	305	210	..	17,086
Western Australia .. .. .	10,817	1,003	685	93	219	163	..	12,457
Tasmania .. .. .	7,937	271	437	71	167	121	..	8,532
<i>Total, States</i> .. .. .	<i>112,914</i>	<i>10,328</i>	<i>8,976</i>	<i>964</i>	<i>2,263</i>	<i>1,643</i>	<i>..</i>	<i>130,663</i>
<b>Grand Total</b> .. .. .	<b>155,559</b>	<b>13,714</b>	<b>24,029</b>	<b>3,344</b>	<b>10,938</b>	<b>2,000</b>	<b>302</b>	<b>186,208</b>

(a) For rates of exchange to £A. ruling at 30th June, 1962, see p. 955.



**GOVERNMENT SECURITIES ON ISSUE : COMMONWEALTH AND STATES—  
ANNUAL INTEREST PAYABLE, 30TH JUNE, 1962—continued**

Particulars	Currency in which payable							Total— Aus- tralian currency equiva- lent(a)
	Aus- tralian currency	Sterling	United States dollars	Can- adian dollars	Swiss francs	Nether- lands guilders	German Deutsche marks	
AVERAGE RATE OF INTEREST LIABILITY								
(Per cent.)								
For Commonwealth purposes—								
War .. .. .	2.97	3.44						2.98
Works .. .. .	4.01	4.73	4.77	4.61	4.14	5.00	4.75	4.26
<i>Total, Commonwealth</i> ..	<i>3.33</i>	<i>4.50</i>	<i>4.77</i>	<i>4.61</i>	<i>4.14</i>	<i>5.00</i>	<i>4.75</i>	<i>3.56</i>
On account of States—								
New South Wales .. .. .	4.39	4.20	4.76	5.75	4.50	5.00	..	4.38
Victoria .. .. .	4.50	4.14	4.88	5.75	4.50	5.00	..	4.48
Queensland .. .. .	4.36	3.62	4.58	5.75	4.50	5.00	..	4.27
South Australia .. .. .	4.48	3.38	4.90	5.75	4.50	5.00	..	4.38
Western Australia .. .. .	4.44	3.30	4.80	5.75	4.50	5.00	..	4.30
Tasmania .. .. .	4.43	3.70	5.03	5.75	4.50	5.00	..	4.39
<i>Total, States</i> .. .. .	<i>4.43</i>	<i>3.88</i>	<i>4.79</i>	<i>5.75</i>	<i>4.50</i>	<i>5.00</i>	..	<i>4.38</i>
<b>Grand Total</b> .. .. .	<b>4.06</b>	<b>4.02</b>	<b>4.78</b>	<b>4.89</b>	<b>4.21</b>	<b>5.00</b>	<b>4.75</b>	<b>4.10</b>

(a) For rates of exchange to £A. ruling at 30th June, 1962, see p. 955.

**2. Government Securities on Issue, Annual Interest Payable and Average Rate of Interest 30th June, 1958 to 1962.**—In the following tables details are given of government securities on issue and annual interest payable, including the average rate of interest, at 30th June, 1958 to 1962.

**GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES**

Particulars	30th June—				
	1958	1959	1960	1961	1962
For Commonwealth purposes—					
Australian currency .. £A.'000	1,589,204	1,496,354	1,378,574	1,326,454	1,280,474
Sterling .. £Stg.'000	61,665	64,040	75,820	75,339	75,188
United States dollars U.S. \$'000	291,913	311,862	333,049	317,812	315,617
Canadian dollars Can. \$'000	50,904	50,911	50,328	51,933	51,627
Swiss francs .. Sw. fr.'000	144,518	148,166	205,794	210,657	209,658
Netherlands guilders .. f.'000	..	..	..	..	7,150
German Deutsche marks D.M.'000	..	12,337	8,369	6,355	6,355
<i>Total, Commonwealth—Australian Currency Equivalent(a) £A.'000</i>	<i>1,835,042</i>	<i>1,755,822</i>	<i>1,666,863</i>	<i>1,607,328</i>	<i>1,559,675</i>
On account of States—					
Australian currency .. £A.'000	1,964,954	2,093,752	2,244,605	2,389,864	2,548,700
Sterling .. £Stg.'000	256,755	267,865	267,105	266,691	266,161
United States dollars U.S. \$'000	127,614	146,008	161,538	178,256	187,701
Canadian dollars Can. \$'000	..	..	..	16,765	16,765
Swiss francs .. Sw. fr.'000	..	..	..	50,296	50,296
Netherlands guilders .. f.'000	..	..	..	..	32,850
<i>Total, States—Australian Currency Equivalents(a) £A.'000</i>	<i>2,342,869</i>	<i>2,493,766</i>	<i>2,650,601</i>	<i>2,815,240</i>	<i>2,981,305</i>
<b>Total, Commonwealth and States— Australian Currency Equivalents(a) £A.'000</b>	<b>4,177,911</b>	<b>4,249,588</b>	<b>4,317,464</b>	<b>4,422,568</b>	<b>4,540,980</b>

(a) For rates of exchange to £A. ruling at 30th June, 1962, see p. 955.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES—  
ANNUAL INTEREST PAYABLE

Particulars	30th June—				
	1958	1959	1960	1961	1962
AMOUNT					
Commonwealth purposes—					
Australian currency .. £A.'000	47,133	45,700	43,556	43,277	42,645
Sterling .. £Stg.'000	2,193	2,327	2,980	3,395	3,386
United States dollars U.S. \$'000	12,956	13,946	15,184	14,570	15,053
Canadian dollars Can. \$'000	2,300	2,302	2,279	2,388	2,380
Swiss francs .. Sw. fr.'000	5,748	5,922	8,514	8,723	8,675
Netherlands guilders .. f.'000	..	..	..	..	357
German Deutsche marks D.M.'000	..	586	398	302	302
<i>Total, Commonwealth—Australian Currency Equivalents(a) £A.'000</i>	<i>57,314</i>	<i>56,576</i>	<i>56,009</i>	<i>55,987</i>	<i>55,545</i>
On account of States—					
Australian currency .. £A.'000	78,189	84,746	93,252	104,072	112,914
Sterling .. £Stg.'000	8,821	9,859	9,832	10,355	10,328
United States dollars U.S. \$'000	5,180	6,124	6,989	7,900	8,976
Canadian dollars Can. \$'000	..	..	..	964	964
Swiss francs .. Sw. fr.'000	..	..	..	2,263	2,263
Netherlands guilders .. f.'000	..	..	..	..	1,643
<i>Total, States—Australian Currency Equivalents(a) £A.'000</i>	<i>91,528</i>	<i>99,804</i>	<i>108,662</i>	<i>121,194</i>	<i>130,663</i>
<i>Total, Commonwealth and States—Australian Currency Equivalents(a) £A.'000</i>	<i>148,842</i>	<i>156,380</i>	<i>164,671</i>	<i>177,181</i>	<i>186,208</i>

## AVERAGE RATE (PER CENT.) OF INTEREST PAYABLE

For Commonwealth Purposes—					
Australian currency .. ..	2.97	3.05	3.16	3.26	3.33
Sterling .. ..	3.56	3.63	3.93	4.51	4.50
United States dollars .. ..	4.44	4.47	4.56	4.58	4.77
Canadian dollars .. ..	4.52	4.52	4.53	4.60	4.61
Swiss francs .. ..	3.98	4.00	4.14	4.14	4.14
Netherlands guilders .. ..	..	..	..	..	5.00
German Deutsche marks .. ..	..	4.75	4.75	4.75	4.75
<i>Total Commonwealth—Australian Currency Equivalents(a) ..</i>	<i>3.12</i>	<i>3.22</i>	<i>3.36</i>	<i>3.48</i>	<i>3.56</i>
On accounts of States—					
Australian currency .. ..	3.98	4.05	4.15	4.35	4.43
Sterling .. ..	3.44	3.68	3.68	3.88	3.88
United States dollars .. ..	4.06	4.19	4.33	4.43	4.79
Canadian dollars .. ..	..	..	..	5.75	5.75
Swiss francs .. ..	..	..	..	4.50	4.50
Netherlands guilders .. ..	..	..	..	..	5.00
<i>Total, States—Australian Currency Equivalents(a) ..</i>	<i>3.91</i>	<i>4.00</i>	<i>4.10</i>	<i>4.30</i>	<i>4.38</i>
<i>Total, Commonwealth and States—Australian Currency Equivalents(a)</i>	<i>3.56</i>	<i>3.68</i>	<i>3.81</i>	<i>4.01</i>	<i>4.10</i>

(a) For rates of exchange to £A. ruling at 30th June, 1962, see p. 955.

3. Government Securities on Issue and Annual Interest Payable, 30th June, 1962—  
Australian Currency.—In the following tables, details, including per capita figures, are shown in Australian currency equivalents calculated at rates of exchange ruling at 30th June, 1962.

**GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES,  
30th JUNE, 1962—AUSTRALIAN CURRENCY**

Particulars	Currency in which repayable							Total
	Australian currency	Sterling	United States dollars	Canadian dollars	Swiss francs	Nether- lands guilders	German Deutsche marks	
AMOUNT (£A.'000)								
For Commonwealth pur- poses—								
War .. ..	837,044	16,486	..	..	..	..	..	853,530
Works .. ..	443,430	77,500	140,901	21,320	21,403	882	709	706,145
Total, Commonwealth—								
Treasury Bills, Internal	240,900	..	..	..	..	..	..	240,900
Other short-term ..	208,000	..	..	..	..	..	..	208,000
Other .. ..	831,574	93,986	140,901	21,320	21,403	882	709	1,110,775
Total, Commonwealth	1,280,474	93,986	140,901	21,320	21,403	882	709	1,559,675
On account of States—								
New South Wales ..	850,495	139,092	33,645	2,180	1,616	1,280	..	1,028,308
Victoria .. ..	623,203	51,381	17,604	1,753	1,300	1,029	..	696,270
Queensland .. ..	311,654	55,592	13,583	880	652	524	..	382,885
South Australia ..	340,008	39,463	8,711	932	692	517	..	390,323
Western Australia ..	243,425	38,015	6,372	668	497	403	..	289,380
Tasmania .. ..	179,915	9,158	3,880	510	378	298	..	194,139
Total, States ..	2,548,700	332,701	83,795	6,923	5,135	4,051	..	2,981,305
Total, Commonwealth and States—								
Treasury Bills, Internal	240,900	..	..	..	..	..	..	240,900
Other short-term ..	208,000	..	..	..	..	..	..	208,000
Other .. ..	3,380,274	426,687	224,696	28,243	26,538	4,933	709	4,092,080
Grand Total ..	3,829,174	426,687	224,696	28,243	26,538	4,933	709	4,540,980

**PER HEAD OF POPULATION  
(£A. s. d.)**

For Commonwealth purposes—									
War	..	..	78	3	10	1	10	10	
Works	..	..	41	8	5	7	4	9	13 3 3 1 19 10 2 0 0 0 1 8 0 1 4 79 14 8 65 19 3
Total, Commonwealth									
..	..	..	119	12	3	8	15	7	13 3 3 1 19 10 2 0 0 0 1 8 0 1 4 145 13 11
On account of States—									
New South Wales	..	..	213	17	4	34	19	6	8 9 2 0 11 0 0 8 2 0 6 5 .. 258 11 7
Victoria	..	..	208	6	6	17	3	6	5 17 8 0 11 9 0 8 8 0 6 11 .. 232 15 0
Queensland	..	..	202	0	7	36	0	9	8 16 1 0 11 5 0 8 5 0 6 10 .. 248 4 1
South Australia	..	..	343	13	1	39	17	9	8 16 1 0 18 10 0 14 0 0 10 5 .. 394 10 2
Western Australia	..	..	322	12	10	50	7	8	8 8 11 0 17 9 0 13 2 0 10 8 .. 383 11 0
Tasmania	..	..	504	1	1	25	13	2	10 17 5 1 8 7 1 1 2 0 16 8 .. 543 18 1
Total, States									
..	..	..	240	3	7	31	7	0	7 17 11 0 13 1 0 9 8 0 7 8 .. 280 18 11
Total, Commonwealth and States									
..	..	..	357	13	11	39	17	2	20 19 10 2 12 9 2 9 7 0 9 2 0 1 4 424 3 9

**GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES—  
ANNUAL INTEREST PAYABLE, 30th JUNE, 1962—AUSTRALIAN CURRENCY**

Particulars	Currency in which repayable—							Total
	Australian currency	Sterling	United States dollars	Canadian dollars	Swiss francs	Netherlands guilders	German Deutsche marks	
AMOUNT (£A.'000)								
For Commonwealth purposes—								
War .. ..	24,875	568	..	..	..	..	..	25,443
Works .. ..	17,770	3,665	6,720	983	886	44	34	30,102
<i>Total, Commonwealth</i> ..	42,645	4,233	6,720	983	886	44	34	55,545
On account of States—								
New South Wales ..	37,333	5,845	1,601	126	73	64	..	45,042
Victoria .. ..	28,014	2,126	859	101	59	52	..	31,211
Queensland .. ..	13,595	2,012	623	50	29	26	..	16,335
South Australia ..	15,218	1,334	423	54	31	26	..	17,086
Western Australia ..	10,817	1,254	306	38	22	20	..	12,457
Tasmania .. ..	7,937	339	195	29	17	15	..	8,532
<i>Total, States</i> ..	112,914	12,910	4,007	398	231	203	..	130,663
<i>Total, Commonwealth and States</i>	155,559	17,143	10,727	1,381	1,117	247	34	186,208

## PER HEAD OF POPULATION

(£A. s. d.)

For Commonwealth purposes—								
War .. ..	2 6 6	0 1 1	..	..	..	..	..	2 7 7
Works .. ..	1 13 2	0 6 10	0 12 7	0 1 10	0 1 8	0 0 1	0 0 1	2 16 3
<i>Total, Commonwealth</i> ..	3 19 8	0 7 11	0 12 7	0 1 10	0 1 8	0 0 1	0 0 1	5 3 10
On account of States—								
New South Wales ..	9 7 9	1 9 4	0 8 1	0 0 8	0 0 4	0 0 4	..	11 6 6
Victoria .. ..	9 7 3	0 14 3	0 5 9	0 0 8	0 0 5	0 0 4	..	10 8 8
Queensland .. ..	8 16 3	1 6 1	0 8 1	0 0 8	0 0 5	0 0 4	..	10 11 10
South Australia ..	15 7 8	1 7 0	0 8 7	0 1 7	0 0 7	0 0 6	..	17 5 5
Western Australia ..	14 6 9	1 13 3	0 8 1	0 1 1	0 0 7	0 0 6	..	16 10 3
Tasmania .. ..	22 4 9	0 19 0	0 10 11	0 1 7	0 1 0	0 0 10	..	23 18 1
<i>Total, States</i> ..	10 12 10	1 4 4	0 7 7	0 0 9	0 0 5	0 0 4	..	12 6 3
<i>Total, Commonwealth and States</i>	14 10 8	1 12 0	1 0 1	0 2 7	0 2 1	0 0 5	0 0 1	17 7 11

4. Government Securities on Issue and Annual Interest Payable, 30th June, 1958 to 1962.—In the following table, particulars of government securities on issue and annual interest payable thereon are shown in Australian currency equivalents calculated at rates of exchange ruling at 30th June in each year.

**GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES—  
SECURITIES ON ISSUE AND ANNUAL INTEREST PAYABLE—AUSTRALIAN  
CURRENCY  
(£A.'000)**

Particulars	30th June—				
	1958	1959	1960	1961	1962
<b>SECURITIES ON ISSUE</b>					
<b>For Commonwealth purposes—</b>					
War .. .. .	1,375,995	1,220,653	1,102,843	1,022,473	853,530
Works .. .. .	459,047	535,169	564,020	584,855	706,145
<b>Total, Commonwealth—</b>					
Treasury Bills, Internal .. .. .	264,300	269,600	233,500	251,100	240,900
Other short-term .. .. .	140,000	171,000	201,000	186,000	208,000
Other .. .. .	1,430,742	1,315,222	1,232,363	1,170,228	1,110,775
<i>Total, Commonwealth</i> .. .. .	<i>1,835,042</i>	<i>1,755,822</i>	<i>1,666,863</i>	<i>1,607,328</i>	<i>1,559,675</i>
<b>On account of States—</b>					
New South Wales .. .. .	828,564	875,770	924,707	976,284	1,028,308
Victoria .. .. .	533,175	571,859	612,003	653,756	696,270
Queensland .. .. .	302,298	320,714	340,118	361,154	382,885
South Australia .. .. .	305,788	326,614	347,914	369,749	390,323
Western Australia .. .. .	227,600	242,019	257,047	272,878	289,380
Tasmania .. .. .	145,444	156,790	168,812	181,419	194,139
<i>Total, States</i> .. .. .	<i>2,342,869</i>	<i>2,493,766</i>	<i>2,650,601</i>	<i>2,815,240</i>	<i>2,981,305</i>
<b>Total, Commonwealth and States—</b>					
Treasury Bills, Internal .. .. .	264,300	269,600	233,500	251,100	240,900
Other short-term .. .. .	140,000	171,000	201,000	186,000	208,000
Other .. .. .	3,773,611	3,808,988	3,882,964	3,985,468	4,092,080
<b>Grand Total</b> .. .. .	<b>4,177,911</b>	<b>4,249,588</b>	<b>4,317,464</b>	<b>4,422,568</b>	<b>4,540,980</b>

**ANNUAL INTEREST LIABILITY**

<b>For Commonwealth purposes—</b>					
War .. .. .	38,200	35,231	32,388	30,680	25,443
Works .. .. .	19,114	21,345	23,621	25,307	30,102
<i>Total, Commonwealth</i> .. .. .	<i>57,314</i>	<i>56,576</i>	<i>56,009</i>	<i>55,987</i>	<i>55,545</i>
<b>On account of States—</b>					
New South Wales .. .. .	32,364	34,985	37,827	42,126	45,042
Victoria .. .. .	21,277	23,581	25,798	28,812	31,211
Queensland .. .. .	11,411	12,381	13,427	15,025	16,335
South Australia .. .. .	11,995	13,094	14,290	15,890	17,086
Western Australia .. .. .	8,640	9,374	10,318	11,479	12,457
Tasmania .. .. .	5,841	6,389	7,002	7,862	8,532
<i>Total, States</i> .. .. .	<i>91,528</i>	<i>99,804</i>	<i>108,662</i>	<i>121,194</i>	<i>130,663</i>
<b>Total, Commonwealth and States .. .. .</b>	<b>148,842</b>	<b>156,380</b>	<b>164,671</b>	<b>177,181</b>	<b>186,208</b>

5. Government Securities on Issue at Each Rate of Interest.—(i) *Commonwealth.* The following table shows particulars of the securities on issue for Commonwealth purposes at 30th June, 1962, at each rate of interest.

**GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH—AMOUNTS AT EACH RATE OF INTEREST, 30th JUNE, 1962**

Rate of interest per annum (per cent.)	Currency in which repayable							Total— Aus- tralian currency equiva- lent(a)
	Aus- tralian currency	Sterling	United States dollars	Can- adian dollars	Swiss francs	Nether- lands guilders	German deutsche marks	
	£A.'000	£Stg.'000	U.S. \$ '000	Can. \$ '000	Sw. fr. '000	f.'000	D.M. '000	£A.'000
6.0 .. .. .	..	15,642	..	..	..	..	..	19,553
5.75 .. .. .	..	..	28,820	3,235	..	..	..	14,202
5.5 .. .. .	..	21,341	40,330	..	..	..	..	44,681
5.375 .. .. .	36,688	..	8,033	..	..	..	..	36,688
5.25 .. .. .	37,111	..	8,739	..	..	..	..	40,697
5.0 .. .. .	349,048	..	106,364	30,406	451	7,150	..	353,832
4.75 .. .. .	107,113	..	32,996	4,259	10,109	..	6,355	167,908
4.625 .. .. .	..	..	1,067	..	69,704	..	..	17,522
4.5 .. .. .	117,004	..	71,508	1,341	9,394	..	..	124,596
4.25 .. .. .	26,931	5,655	..	12,386	60,000	..	..	60,367
4.0 .. .. .	5,832	..	..	..	60,000	..	..	24,141
3.875 .. .. .	34	..	..	..	..	..	..	6,159
3.75 .. .. .	3,606	..	12,796	..	..	..	..	9,319
3.5 .. .. .	..	5,652	4,964	..	..	..	..	9,281
3.25 .. .. .	..	17,129	..	..	..	..	..	21,411
3.125 .. .. .	99,696	..	..	..	..	..	..	99,696
3.0 .. .. .	..	9,769	..	..	..	..	..	12,211
1.0 .. .. .	448,900	..	..	..	..	..	..	448,900
Overdue .. .. .	4,367	..	..	..	..	..	..	4,367
National Savings Stamps .. .. .	18	..	..	..	..	..	..	18
Special Bonds .. .. .	44,126	..	..	..	..	..	..	44,126
<b>Total—</b>								
Currencies in which Repayable .. .. .	1,280,474	75,188	315,617	51,627	209,658	7,150	6,355	..
Australian Currency Equivalents(a) .. .. .	1,280,474	93,986	140,901	21,320	21,403	882	709	1,559,675

(a) For rates of exchange to £A. ruling at 30th June, 1962, see p. 955.

(ii) *States.* The following table shows particulars of the securities on issue for State purposes at 30th June, 1962, at each rate of interest.

**GOVERNMENT SECURITIES ON ISSUE: STATES—AMOUNTS AT EACH RATE OF INTEREST, 30th JUNE, 1962**

Rate of interest per annum (per cent.)	Currency in which repayable						Total— Aus- tralian currency equiva- lent(a)
	Aus- tralian currency	Sterling	United States dollars	Can- adian dollars	Swiss francs	Nether- lands guilders	
	£A.'000	£Stg.'000	U.S. \$ '000	Can. \$ '000	Sw. fr. '000	f.'000	
6.0 .. .. .		34,193					42,741
5.75 .. .. .	126,742			16,765			133,665
5.5 .. .. .		32,080	38,995				57,508
5.25 .. .. .	226,040		41,292				244,474
5.0 .. .. .	607,370	1	30,220			32,850	624,913
4.75 .. .. .	224,540		18,788				232,928
4.5 .. .. .	569,255	11,790	19,940		50,296		598,030
4.25 .. .. .	144,629						144,629
4.0 .. .. .	43,722	21,665					70,803
3.875 .. .. .	703						703
3.75 .. .. .	69,865		6,447				72,743
3.625 .. .. .	107						107
3.5 .. .. .	5,044	25,134	32,019				50,756
3.4875 .. .. .	2						2
3.25 .. .. .	12,195	51,276					76,290
3.125 .. .. .	372,806						372,806
3.1 .. .. .	3,380						3,380
3.0 .. .. .	26,359	55,784					96,089
2.75 .. .. .		15,795					19,744
2.7125 .. .. .	319						319
2.5 .. .. .	2	18,441					23,053
2.325 .. .. .	1,424						1,424
1.5 .. .. .	3,020						3,020
1.0 .. .. .	31,466						31,466
Overdue .. .. .		2					2
Special Bonds .. .. .	79,710						79,710
Total—							
Currencies in which Repayable .. .. .	2,548,700	266,161	187,701	16,765	50,296	32,850	..
Australian Currency Equiva- lent(a) .. .. .	2,548,700	332,701	83,795	6,923	5,135	4,051	2,981,305

(a) For rates of exchange to £A. ruling at 30th June, 1962, see p. 955.

6. Government Securities on Issue at Dates of Maturity.—(i) *Commonwealth.* In the following tables, government securities on issue on account of the Commonwealth at 30th June, 1962, are classified according to the earliest and latest years of maturity.

**GOVERNMENT SECURITIES ON ISSUE, 30th JUNE, 1962: COMMONWEALTH—  
BY EARLIEST YEAR OF MATURITY**

Particulars.	Currency in which repayable							Total— Aus- tralian currency equiva- lent(a)
	Aus- tralian currency	Sterling	United States dollars	Can- adian dollars	Swiss francs	Nether- lands guilders	German deutsche marks	
	£A.'000	£Stg.'000	U.S. \$ '000	Can. \$ '000	Sw. fr. '000	f.'000	D.M. '000	£A.'000
Before 30th June, 1962 ..	80,653	11,307	240,351	48,392	19,954	..	6,355	224,816
1962-63 .. ..	512,431	..	5,200	..	..	..	..	514,752
1963-64 .. ..	44,782	..	9,230	..	..	..	..	48,903
1964-65 .. ..	29,048	122	..	..	60,000	..	..	35,326
1965-66 .. ..	8,468	17,007	..	..	60,000	..	..	35,853
1966-67 .. ..	51,201	..	5,096	..	..	..	..	53,476
1967-68 .. ..	49,617	..	3,734	..	..	7,150	..	52,166
1968-69 .. ..	66,531	..	3,643	..	..	..	..	68,157
1969-70 .. ..	9,113	..	28,314	..	60,000	..	..	27,878
1970-71 .. ..	31,359	6,951	4,044	3,235	9,704	..	..	44,180
1971-72 .. ..	13,576	..	16,005	..	..	..	..	20,721
1972-73 .. ..	26,602	..	..	..	..	..	..	26,602
1974-75 .. ..	63,171	..	..	..	..	..	..	63,171
1975-76 .. ..	52,681	20,075	..	..	..	..	..	77,775
1976-77 .. ..	67,318	11,910	..	..	..	..	..	14,888
1979-80 .. ..	9,110	..	..	..	..	..	..	67,318
1980-81 .. ..	62,219	7,816	..	..	..	..	..	9,110
1981-82 .. ..	33,174	..	..	..	..	..	..	71,989
1982-83 .. ..	18,674	..	..	..	..	..	..	33,174
1984-85 .. ..	2,156	..	..	..	..	..	..	18,674
1985-86 .. ..	..	..	..	..	..	..	..	2,156
War (1939-45) Savings and Savings Certificates—								
Seven Years Series ..	1,575	..	..	..	..	..	..	1,575
Five Years Series ..	957	..	..	..	..	..	..	957
War (1914-18) Savings Stamps .. ..	14	..	..	..	..	..	..	14
National Savings Stamps	16	..	..	..	..	..	..	16
War (1939-45) Savings Stamps .. ..	140	..	..	..	..	..	..	140
Peace Savings Certificates	33	..	..	..	..	..	..	33
Overdue .. ..	1,683	..	..	..	..	..	..	1,683
Half-yearly instalments ..	46	..	..	..	..	..	..	46
Special bonds .. ..	44,126	..	..	..	..	..	..	44,126
<b>Total—</b>								
Currencies in which Repayable ..	1,280,474	75,188	315,617	51,627	209,658	7,150	6,355	..
Australian Currency Equivalents(a) ..	1,280,474	93,986	140,901	21,320	21,403	882	709	1,559,675

(a) For rates of exchange to £A. ruling at 30th June, 1962, see p. 955.

GOVERNMENT SECURITIES ON ISSUE, 30th JUNE, 1962: COMMONWEALTH—  
BY LATEST YEAR OF MATURITY

Particulars	Currency in which repayable							Total— Aus- tralian currency equiva- lents (a)
	Aus- tralian currency	Sterling	United States dollars	Can- adian dollars	Swiss francs	Nether- lands guilders	German Deutsche marks	
	£A.'000	£Stg.'000	U.S. \$ '000	Can. \$ '000	Sw. fr. '000	f.'000	D.M. '000	£A.'000
1962-63 .. ..	512,431	..	1,300	..	..	..	..	513,011
1963-64 .. ..	92,404	5,655	8,970	..	..	..	..	103,478
1964-65 .. ..	58,461	..	5,200	..	..	..	..	60,783
1965-66 .. ..	12,086	..	1,400	..	..	..	..	12,711
1966-67 .. ..	51,201	5,652	14,194	..	..	..	..	64,603
1967-68 .. ..	49,617	..	..	..	..	..	..	49,617
1968-69 .. ..	66,531	..	52,267	8,988	60,000	..	..	99,702
1969-70 .. ..	9,113	17,007	44,492	4,259	70,109	..	..	59,151
1970-71 .. ..	31,359	..	1,067	12,386	..	..	..	36,950
1971-72 .. ..	13,576	..	42,276	2,243	..	..	6,355	34,084
1972-73 .. ..	26,602	6,951	20,937	19,175	451	..	..	52,602
1974-75 .. ..	63,171	122	..	..	60,000	..	..	69,449
1975-76 .. ..	52,681	7,826	71,508	1,341	19,098	..	..	96,891
1977-78 .. ..	..	9,769	..	..	..	..	..	12,211
1978-79 .. ..	..	2,480	3,643	..	..	..	..	4,726
1979-80 .. ..	67,318	11,910	28,314	..	..	..	..	94,845
1980-81 .. ..	9,110	..	4,044	3,235	..	..	..	12,251
1981-82 .. ..	62,219	..	16,005	..	..	7,150	..	70,246
1982-83 .. ..	33,174	..	..	..	..	..	..	33,174
1983-84 .. ..	..	7,816	..	..	..	..	..	9,770
1984-85 .. ..	18,674	..	..	..	..	..	..	18,674
1985-86 .. ..	2,156	..	..	..	..	..	..	2,156
War (1939-45) Savings and Savings Certificates—								
Seven Years Series ..	1,575	..	..	..	..	..	..	1,575
Five Years Series ..	957	..	..	..	..	..	..	957
War (1914-18) Savings Stamps .. ..	14	..	..	..	..	..	..	14
National Savings Stamps ..	16	..	..	..	..	..	..	16
War (1939-45) Savings Stamps .. ..	140	..	..	..	..	..	..	140
Peace Savings Certificates ..	33	..	..	..	..	..	..	33
Overdue .. ..	1,683	..	..	..	..	..	..	1,683
Half-yearly instalments ..	46	..	..	..	..	..	..	46
Special bonds .. ..	44,126	..	..	..	..	..	..	44,126
Total—								
Currencies in which Repayable ..	1,280,474	75,188	315,617	51,627	209,658	7,150	6,355	..
Australian Currency Equivalents(a) ..	1,280,474	93,986	140,901	21,320	21,403	882	709	1,559,675

(a) For rates of exchange to £A. ruling at 30th June, 1962, see p. 955.



(ii) *States.* Particulars of government securities on issue on account of the States at 30th June, 1962, are classified in the following tables according to the earliest and latest years of maturity.

**GOVERNMENT SECURITIES ON ISSUE, 30th JUNE, 1962: STATES—  
BY EARLIEST YEAR OF MATURITY**

Particulars	Currency in which repayable						Total— Aus- tralian currency equiva- lent(a)
	Aus- tralian currency	Sterling	United States dollars	Can- adian dollars	Swiss francs	Nether- lands guilders	
	£A.'000	£Stg.'000	U.S. \$ '000	Can. \$ '000	Sw.fr. '000	f.'000	£A.'000
Before 30th June, 1962 .. ..	277,531	46,055	58,406	..	..	..	361,174
1962-63 .. ..	414,002	12,655	..	..	..	..	429,821
1963-64 .. ..	210,502	9,590	..	..	..	..	222,490
1964-65 .. ..	118,106	12,616	..	..	..	..	133,876
1965-66 .. ..	62,972	64,044	..	..	..	..	143,027
1966-67 .. ..	129,380	..	12,504	..	..	..	134,962
1967-68 .. ..	168,271	15,795	18,788	..	..	32,850	200,454
1968-69 .. ..	205,786	..	17,716	..	..	..	213,695
1969-70 .. ..	71,288	20,282	20,336	..	..	..	105,719
1970-71 .. ..	103,116	..	20,956	16,765	50,296	..	124,529
1971-72 .. ..	42,265	12,175	38,995	..	..	..	74,892
1972-73 .. ..	75,761	10,000	..	..	..	..	88,261
1973-74 .. ..	3,337	..	..	..	..	..	3,337
1974-75 .. ..	55,867	18,174	..	..	..	..	78,585
1975-76 .. ..	90,424	26,356	..	..	..	..	123,369
1976-77 .. ..	6,002	..	..	..	..	..	6,002
1977-78 .. ..	7,088	13,885	..	..	..	..	24,444
1978-79 .. ..	8,359	..	..	..	..	..	8,359
1979-80 .. ..	106,736	..	..	..	..	..	106,736
1980-81 .. ..	86,567	..	..	..	..	..	86,567
1981-82 .. ..	104,597	2,134	..	..	..	..	107,264
1982-83 .. ..	37,455	..	..	..	..	..	37,455
1983-84 .. ..	1,615	..	..	..	..	..	1,615
1984-85 .. ..	53,617	..	..	..	..	..	53,617
1985-86 .. ..	2,761	..	..	..	..	..	2,761
1986-87 .. ..	1,834	..	..	..	..	..	1,834
Overdue .. ..	..	2	..	..	..	..	2
Interminable .. ..	..	1	..	..	..	..	1
Treasurer's option .. ..	..	2,397	..	..	..	..	2,996
Half-yearly drawings .. ..	14,106	..	..	..	..	..	14,106
Indefinite .. ..	9,645	..	..	..	..	..	9,645
Special bonds .. ..	79,710	..	..	..	..	..	79,710
<b>Total—</b>							
<b>Currencies in which Repayable</b>	<b>2,548,700</b>	<b>266,161</b>	<b>187,701</b>	<b>16,765</b>	<b>50,296</b>	<b>32,850</b>	<b>..</b>
<b>Australian Currency Equiva-</b>							
<b>lents(a) .. ..</b>	<b>2,548,700</b>	<b>332,701</b>	<b>83,795</b>	<b>6,923</b>	<b>5,135</b>	<b>4,051</b>	<b>2,981,305</b>

(a) For rates of exchange to £A. ruling at 30th June, 1962, see p. 955.

GOVERNMENT SECURITIES ON ISSUE, 30th JUNE, 1962: STATES—  
BY LATEST YEAR OF MATURITY

Particulars				Currency in which repayable					Total— Aus- tralian currency equiva- lent(a)
				Aus- tralian currency	Sterling	United States dollars	Can- adian dollars	Swiss francs	
				£A. '000	£ Stg. '000	U.S. \$ '000	Can. \$ '000	Sw. Fr. '000	£A. '000
1962-63	..	..	..	414,002	11,789	..	..	..	428,738
1963-64	..	..	..	210,736	..	..	..	..	210,736
1964-65	..	..	..	293,216	12,655	..	..	..	309,035
1965-66	..	..	..	165,159	9,590	..	..	..	177,147
1966-67	..	..	..	129,380	23,294	32,019	..	..	172,792
1967-68	..	..	..	168,271	25,384	..	..	..	200,001
1968-69	..	..	..	205,786	..	..	..	..	205,786
1969-70	..	..	..	71,288	40,501	6,447	..	..	124,792
1970-71	..	..	..	103,116	10,971	19,940	..	..	125,732
1971-72	..	..	..	42,265	15,795	12,504	..	..	67,591
1972-73	..	..	..	75,761	10,000	18,788	..	..	96,648
1973-74	..	..	..	3,337	12,175	..	..	..	18,556
1974-75	..	..	..	55,867	33,232	..	..	..	97,407
1975-76	..	..	..	90,424	..	..	..	50,296	95,559
1976-77	..	..	..	6,002	16,000	..	..	..	26,002
1977-78	..	..	..	7,088	4,276	..	..	..	12,433
1978-79	..	..	..	8,359	22,080	17,716	..	..	43,868
1979-80	..	..	..	106,736	..	20,336	..	..	115,815
1980-81	..	..	..	86,567	13,885	20,956	16,765	..	120,201
1981-82	..	..	..	104,597	..	38,995	..	..	126,057
1982-83	..	..	..	37,455	..	..	..	..	37,455
1983-84	..	..	..	1,615	2,134	..	..	..	4,282
1984-85	..	..	..	53,617	..	..	..	..	53,617
1985-86	..	..	..	2,761	..	..	..	..	2,761
1986-87	..	..	..	1,834	..	..	..	..	1,834
Overdue	..	..	..	..	2	..	..	..	2
Interminable	..	..	..	..	1	..	..	..	1
Treasurer's option	..	..	..	..	2,397	..	..	..	2,996
Half-yearly drawings	..	..	..	14,106	..	..	..	..	14,106
Indefinite	..	..	..	9,645	..	..	..	..	9,645
Special bonds	..	..	..	79,710	..	..	..	..	79,710
Total—									
Currencies in which Repayable				2,548,700	266,161	187,701	16,765	50,296	32,850
Australian Currency Equiva- lents(a)				2,548,700	332,701	83,795	6,923	5,135	4,051
									2,981,305

(a) For rates of exchange to £A. ruling at 30th June, 1962, see p. 955.

7. **Short-term Securities on Issue.**—Particulars of the short-term securities (Treasury bills and seasonal securities) of the Commonwealth and States in Australia at intervals from 30th June, 1958, to 30th June, 1962, are shown in the following table. These securities are included in the government securities on issue as shown elsewhere. No short-term securities have been raised overseas since September, 1956, when all such securities held in London were expatriated to Australia.

**GOVERNMENT SHORT-TERM SECURITIES ON ISSUE(a): COMMONWEALTH AND STATES**

**MATURING IN AUSTRALIA**

(£A.'000)

Date	Commonwealth		States(c)	Total
	Treasury bills	Seasonal securities(b)		
30th June, 1958 .. ..	140,000	..	..	140,000
" " 1959 .. ..	171,000	..	..	171,000
" " 1960 .. ..	201,000	..	..	201,000
30th September, 1960 .. ..	254,000	..	..	254,000
31st December, 1960 .. ..	320,000	30,227	..	350,227
31st March, 1961 .. ..	282,000	47,513	..	329,513
30th June, 1961 .. ..	186,000	..	..	186,000
30th September, 1961 .. ..	236,000	25,099	2,000	263,099
31st December, 1961 .. ..	303,000	49,350	11,000	363,350
31st March, 1962 .. ..	213,000	86,125	5,500	304,625
30th June, 1962 .. ..	208,000	..	..	208,000

(a) Excludes overdrafts and internal Treasury bills.  
inscribed stock.

(b) Seasonal Treasury notes and seasonal

(c) Treasury bills.

The Treasury bill discount rate in Australia has remained at 1 per cent. since 29th July, 1952.

The 1961–62 issues of seasonal securities, which were readily cashable, transferable and interchangeable at any time, were redeemable at par on maturity at the end of three months, and all such securities were redeemed and cancelled before 30th June, 1962. Seasonal securities were issued in multiples of £1,000 over the minimum subscription of £5,000 at a price of £99 0s. 6d. per cent., and yielded a return of approximately 3.7 per cent. if held for three months. Such increases in value were taxable, but carried the right of rebate of two shillings in the pound as with Commonwealth loan interest.

8. **Government Securities on Issue on Account of the States; Local Government and Semi-governmental Authority Securities on Issue.**—In some States, certain public utilities, such as tramways, water supply and sewerage, harbour services, etc., are controlled by boards or trusts, which in addition to receiving advances from the central government, raise loans by borrowing on their own behalf, while in other States these services are controlled by the central government. Direct comparisons between States of the securities on issue on account of the several States should therefore be made with caution. The table following shows for 1956–57 to 1960–61 particulars of the securities on issue on account of the States, the securities on issue by local government and semi-governmental authorities, and the aggregates of these.

**GOVERNMENT SECURITIES ON ISSUE ON ACCOUNT OF THE STATES;  
LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL AUTHORITY SECURITIES  
ON ISSUE**

Particulars	State	Local government (a)	Semi-gov- ernmental (a)	Total
SECURITIES ON ISSUE (£A.'000)(b) 30th June, 1961				
New South Wales .. .. .	976,284	78,927	292,614	1,347,825
Victoria .. .. .	653,756	45,338	459,966	1,159,060
Queensland .. .. .	361,154	99,291	82,786	543,231
South Australia .. .. .	369,749	6,319	36,592	412,660
Western Australia .. .. .	272,878	13,274	20,513	306,665
Tasmania .. .. .	181,419	14,796	16,111	212,326
<b>Total, 30th June, 1961 .. .. .</b>	<b>2,815,240</b>	<b>257,945</b>	<b>908,582</b>	<b>3,981,767</b>
1960 .. .. .	2,650,601	235,852	844,912	3,731,365
1959 .. .. .	2,493,766	214,182	771,354	3,479,302
1958 .. .. .	2,342,869	197,691	703,810	3,244,370
1957 .. .. .	2,198,164	185,621	633,174	3,016,959

**PER HEAD OF POPULATION  
(£A.)(b)**

30th June, 1961

New South Wales .. .. .	249.2	20.1	74.7	344.0
Victoria .. .. .	223.1	15.5	157.0	395.6
Queensland .. .. .	237.8	65.4	54.5	357.7
South Australia .. .. .	381.4	6.5	37.8	425.7
Western Australia .. .. .	370.4	18.0	27.9	416.3
Tasmania .. .. .	517.8	42.3	46.0	606.1
<b>Total, 30th June, 1961 .. .. .</b>	<b>270.1</b>	<b>24.7</b>	<b>87.2</b>	<b>382.0</b>
1960 .. .. .	260.1	23.1	82.8	366.0
1959 .. .. .	249.8	21.4	77.2	348.4
1958 .. .. .	239.6	20.2	72.0	331.8
1957 .. .. .	229.4	19.4	66.1	314.9

(a) Excludes amounts due to the central government. Includes bank overdrafts. (b) Oversea holdings have been converted to Australian currency at the rates of exchange current at 30th June of each year shown.

#### § 4. Commonwealth Loan Raisings

1. General.—Under the Financial Agreement between the Commonwealth and the States, the Commonwealth is responsible for raising all loan moneys required either by the Commonwealth or by the State Governments. Details of loan transactions given in this section relate, therefore, to all loans raised for the Commonwealth and the States.

2. New Loans Raised, 1959-60 to 1961-62.—(i) *Australia*. The following table shows details of new loans raised in Australia by the Commonwealth during the three years 1959-60 to 1961-62.

## COMMONWEALTH NEW LOANS(a) RAISED IN AUSTRALIA

Month of raising	Amount invited	Amount sub- scribed	Rate of interest per annum	Year of maturity	Price of issue per £100	Allocation of proceeds		
						Commonwealth		States
						War (1939- 45) etc.	Other pur- poses	
	£'000	£'000	Per cent.		£	£'000	£'000	£'000
1959-60—								
September (Loan No. 118) ..	50,000	{ 12,993 6,698 38,878	{ 4 4½ 5	{ 1962 1968 1979	{ 100 99½ 100	{ .. .. ..	{ 12 .. ..	{ 58,557 .. ..
February (Loan No. 120) ..	45,000	{ 5,989 16,799 17,528	{ 4 4½ 5	{ 1963 1969 1981	{ 99½ 99½ 100	{ .. .. ..	{ 25 .. ..	{ 40,291 .. ..
May (Loan No. 121) ..	25,000	{ 1,794 10,563 9,258	{ 4 4½ 5	{ 1963 1969 1981	{ 99½ 99½ 100	{ .. .. ..	{ 9 .. ..	{ 21,606 .. ..
June (Loan No. 123) (b) ..	55,000	{ 6,000 9,000 40,000	{ 4 4½ 5	{ 1963 1969 1981	{ 99½ 99½ 100	{ 4,418 .. ..	{ 20,331 .. ..	{ 30,251 .. ..
July-June (Special Bonds) (c) ..	..	26,177	4-5	{ 1966 1967 }	100	1,408	4,077	20,692
1960-61—								
September (Loan No. 124) ..	30,000	{ 12,568 6,847 13,542	{ 4½ 4½ 5	{ 1962 1969 1982	{ 100 98½ 100	{ .. .. ..	{ 24 .. ..	{ 32,933 .. ..
February (Loan No. 126) ..	35,000	{ 23,638 3,692 7,584	{ 5½ 5½ 5½	{ 1963 1970 1981	{ 99½ 98½ 100	{ .. .. ..	{ 4 .. ..	{ 34,910 .. ..
May (Loan No. 127) ..	25,000	{ 24,747 1,338 8,425	{ 5½ 5½ 5½	{ 1963 1970 1981	{ 99½ 98½ 100	{ .. .. ..	{ 9 .. ..	{ 34,501 .. ..
June (Loan No. 129) (b) ..	90,000	{ 55,000 10,000 25,000	{ 5½ 5½ 5½	{ 1963 1970 1981	{ 99½ 98½ 100	{ 1,304 .. ..	{ 31,614 .. ..	{ 57,082 .. ..
July-June (Special Bonds) (c) ..	..	11,501	4-5	{ 1967 1968 }	100	2,216	1,502	7,783
1961-62—								
September (Loan No. 130) ..	40,000	{ 28,376 9,438 35,685	{ 4½ 5½ 5½	{ 1964 1970 1982	{ 100 100 100	{ .. .. ..	{ 5 .. ..	{ 73,494 .. ..
February (Loan No. 132) ..	55,000	{ 47,787 17,404 25,495	{ 4½ 4½ 5	{ 1964 1971 1984	{ 99½ 99½ 100	{ .. .. ..	{ 27,758 .. ..	{ 62,928 .. ..
May (Loan No. 134) ..	40,000	{ 14,824 2,750 21,004	{ 4½ 4½ 5	{ 1965 1971 1984	{ 99½ 99½ 100	{ .. .. ..	{ 6,131 .. ..	{ 32,447 .. ..
June (Loan No. 136) (b) ..	7,000	{ 2,000 5,000	{ 4½ 5	{ 1971 1984	{ 98½ 100	{ .. ..	{ 7,000 ..	{ .. ..
July-June (Special Bonds) (c) ..	..	20,312	4½-5½	{ 1968 1969 }	100	385	7,325	12,602

(a) Includes loans raised for redemption of Treasury Bills, but excludes conversion loans, loans for redemption of debt maturing in London, short-term debt and certain miscellaneous debt (see p. 971).  
 (b) Special issue. For details see following paragraph. (c) Special Bonds open for continuous subscription, redeemable at prices commencing at par and increasing to a premium of £3 per cent. if held until maturity in 1966-69. Interest increases from 4 per cent. to 5 per cent. over period of currency.

The loans of £55,000,000, £90,000,000 and £7,000,000 raised in June, 1960, 1961 and 1962, respectively, were for the purpose of fulfilling an undertaking given by the Commonwealth that the States would have access to loan funds for their works programmes up to the approved Loan Council borrowing programmes. These programmes totalled £220,000,000 in 1959-60, £230,000,000 in 1960-61 and £247,500,000 in 1961-62. Subscriptions to these special loans for the three years covered came from the Loan Consolidation and Investment Reserve Trust Account.

Finance for the approved Loan Council programmes from 1959-60 to 1961-62 was provided from the following sources.

**LOAN COUNCIL PROGRAMME: SOURCE OF FINANCE**  
(£'000)

Source	1959-60(a)	1960-61	1961-62
Public loans, domestic raisings, etc. . . . .	148,300	117,900	225,100
Oversea loans and special Commonwealth assistance	71,700	112,100	22,400
<b>Total . . . . .</b>	<b>220,000</b>	<b>230,000</b>	<b>247,500</b>

(a) Excludes amounts provided for emergency wheat storage, £6,937,000 and for rehabilitation of the Mount Isa-Townsville-Collinsville railway line, £20,000,000.

In addition to the new loans raised as shown in the foregoing tables and the redemption and conversion loans shown in the following paragraph, there were other miscellaneous loan operations during 1961-62, namely:—Savings Certificates and War Savings Certificates (Five and Seven Years' Series), a decrease of £3,456,000, and "over the counter sales" (small amounts borrowed by the States by virtue of certain statutory rights), £3,089,000. Advance loan subscriptions in hand increased from £781,000 at the end of 1960-61 to £2,156,000 at the end of 1961-62.

(ii) *London.* The only new loan raised in London during the three years ended 1961-62 was for £Stg.12,000,000, 5½ per cent. interest, price of issue £Stg.99 per £Stg.100, maturing 1980, raised during 1959-60.

(iii) *New York.* The following table gives details of the loans raised during the period 1958-59 to 1961-62.

**COMMONWEALTH NEW LOANS RAISED IN NEW YORK**

Month of raising	Amount of loan	Rate of interest per annum	Price of issue per \$100	Year of maturity	Allocation of proceeds	
					Commonwealth	States
	\$'000	Per cent.	\$		\$'000	\$'000
<b>1959-60—</b>						
September . .	25,000	5½	97	1979	25,000	..
April . .	25,000	5½	97½	1980	4,100	20,900
July-June . .	4,160	4½	100	(a) 1960-65 (c)	4,160	..
July-June . .	6,240	4½	100	(a) 1960-65 (c)	6,240	..
<b>1960-61—</b>						
September . .	25,000	5½	98	1980	4,044	20,956
July-June . .	3,517	5½	100	(a) 1962-68 (c)	3,517	..
July-June . .	2,000	5½	100	(b) 1961-65 (d)	2,000	..
<b>1961-62—</b>						
July . .	25,000	5½	97	1981	4,469	20,531
July-June . .	26,483	5½	100	1962-68 (c)	26,483	..

(a) Repayable in half-yearly instalments. (b) Repayable in quarterly instalments. (c) Proceeds used for Qantas Empire Airways Loan. (d) Proceeds used for Australian National Airlines Loan.

3. Conversion and Redemption Loans, 1959-60 to 1961-62.—(i) *Australia.* Particulars of conversion loans raised in Australia during the three years 1959-60 to 1961-62 are given in the following table.

## COMMONWEALTH CONVERSION AND REDEMPTION LOANS RAISED IN AUSTRALIA

Month of raising	Old loan		New loan				Increase in annual liability for interest
	Amount	Rate of interest per annum	Amount	Rate of interest per annum	Price of issue per £100	Year of maturity	
	£A.'000	Per cent.	£A.'000	Per cent.	£		£A.'000
1959-60—			{ 35,487	4	100	1962	819
September ..	194,750	3½	{ 35,531	4½	99½	1968	
		3½	{ 69,072	5	100	1979	
			{ (a)8,605	4-5	100	1966	
			{ 36,418	4	99½	1963	
May ..	100,848	4	{ 15,030	4½	99½	1969	- 567
			{ 24,105	5	100	1981	
			{ (a)2,270	4-5	100	1967	
July-June (Special Bonds) ..	3,214	4-5	{ 3,214	4-5	100	1966	
			{ 19,286	4½	100	1967	
1960-61—			{ 31,724	4½	98½	1969	195
September ..	{ 39,561	3½	{ 52,954	5	100	1982	
	{ 118,431	3½	{ (a)7,172	4½-5	100	1968	
May ..	5,000	4	{ 5,000	5½	99½	1963	
			{ 82,274	5½	99½	1963	
May ..	179,210	4	{ 26,214	5½	98½	1970	1,162
			{ 48,178	5½	100	1981	
			{ (a) 989	4½-5½	100	1968	
July-June (Special Bonds) ..	7,596	4-5	{ 7,596	4-5½	100	1967	
			{ 34,205	4½	100	1964	
1961-62—			{ 26,783	5½	100	1970	198
September ..	{ 123,517	3½	{ 37,616	5½	100	1982	
	{ 24,397	4½	{ (a)5,743	4½-5½	100	1968	
			{ 35,036	4½	99½	1964	
			{ 9,447	4½	99½	1971	
February ..	60,594	4	{ 8,343	5	100	1984	- 4
			{ (a)1,440	4½-5½	100	1969	
			{ 31,552	4½	99½	1965	
May ..	{ 48,484	4	{ 21,676	4½	99½	1971	
	{ 29,831	4½	{ 8,994	5	100	1984	
July-June (Special Bonds) ..	7,057	4-5½	{ (a)1,052	4½-5	100	1969	- 341
			{ 7,057	4½-5½	100	1968	
						1969	18

(a) Special Bonds.

NOTE.—Minus sign (—) indicates reduction in liability for interest.

(ii) *London.* The following table shows particulars of loans raised in London during the years 1958-59 and 1960-61 for the purpose of redeeming and converting London loans. None was raised during 1961-62.

## COMMONWEALTH LOANS RAISED FOR THE CONVERSION AND REDEMPTION OF LOANS MATURING IN LONDON

Month of raising	Old loan		New loan					Increase in annual liability for interest and exchange (a)
	Amount	Rate of interest per annum	Amount raised in—		Rate of interest per annum	Price of issue per £100	Year of maturity	
			Australia	London				
			£Stg. '000	Per cent.				
1958-59— March ..	20,675	3½	..	20,000	5½	99	{ 1973 1979	{ 470
1960-61— July ..	13,925	3	..	13,925	6	98	{ 1977-80 1975	{ 522
January ..	20,579	3½	..	20,000	6	97½	{ 1981-83	{ 664

(a) No account has been taken of the cost of issuing the conversion loans at a discount. Exchange calculated at £A.125 = £Stg.100.

(iii) *New York*. During 1946-47, four loans totalling \$128,000,000 were raised in New York to redeem loans which became due for redemption or which the Commonwealth had the option of redeeming. No further loans were raised in New York for this purpose until December, 1954. The loan raised in New York for this purpose in March, 1957, amounted to \$17,114,000, at 5 per cent. interest, issued at par, maturing in 1972. No loans were raised for the purpose of redeeming loans which became due for redemption or which the Commonwealth had the option of redeeming during 1958-59 and 1960-61. In 1961-62, a re-financing loan of \$30,000,000 was raised at 5½ per cent. interest, issued at par, maturing in 1982.

4. *International Bank for Reconstruction and Development Loans*.—To provide dollar funds for the purchase of certain types of capital equipment and plant which were indispensable to the furtherance of development in Australia and which could be obtained only in the United States of America or Canada, the Commonwealth Government arranged six loans from the International Bank for Reconstruction and Development between August, 1950, and December, 1956, amounting to \$317,730,000, repayable over periods of from 10 to 25 years, at rates of interest of from 4½ to 4¾ per cent. The proceeds of the latest of these loans were finally drawn in March, 1959.

The capital equipment and plant purchased from the proceeds of these loans are made available to Commonwealth and State Government departments and agencies and private firms and individuals for use in the development of Australian resources. The goods are imported and distributed through normal channels and payment made through the Australian banking system.

5. *Swiss Loans*.—To foster industrial development in Australia and to stimulate trade relations between the two countries, the Commonwealth Government arranged for the issue in Switzerland in November, 1953, February, 1955, March, 1960, and March, 1961, of four public loans each of 60,000,000 Swiss francs. The loans were underwritten by a Swiss banking group headed by the Swiss Bank Corporation, the Crédit Suisse and the Union Bank of Switzerland. Certain Swiss taxes connected with the issue and servicing of the loans were paid on an agreed basis by the Australian Government.

The first loan was for a period of 15 years with an option on the part of the Commonwealth Government to repay the loan in full or in part after 12 years. The rate of interest was 4 per cent. and the issue price £99. Bondholders have the option of requiring payment either in Australian pounds or in the foreign currency equivalent of Australian pounds.

The second loan was for a period of 15 years with an option to redeem after 10 years. The rate of interest was 3¾ per cent. and the issue price £99 10s. Bonds and interest are payable only in Swiss francs. The third loan was for a period of fifteen years with an option to redeem after 10 years. The rate of interest was 4½ per cent. and the issue price £99. The fourth loan was issued at par in March, 1961, at the rate of 4½ per cent. maturing in April, 1976. Payments of interest and repayments of principal are to be made only in Swiss francs.

The loans were fully subscribed, and Swiss franc proceeds, after deducting borrowing expenses, were sold by the Commonwealth Government to the Commonwealth Bank in return for an equivalent amount of Australian currency.

6. *Canadian Loans*.—In October, 1955, the Commonwealth Government arranged for the issue in Canada of a public loan of 15,000,000 Canadian dollars raised to assist Australia's development programme. The loan was for a period of 15 years with an option on the part of the Australian Government to repay the loan in full or in part at any time prior to 1st November, 1970. The rate of interest was 4 per cent., payable half-yearly, and the issue price \$98.50. A second loan, of 20,000,000 Canadian dollars, was raised in March, 1961, on the security of the Commonwealth of Australia, 5½ per cent. twenty-year Wonds being issued at the rate of \$98½ per cent. Bonds and interest are payable in Canadian dollars in each case.



The loans were fully subscribed, and the net Canadian dollar proceeds were sold to the Commonwealth Bank for Australian currency.

7. **Dutch Guilders Loan.**—In 1961, the Commonwealth arranged for a public flora on in the Netherlands of a loan of 40,000,000 Dutch guilders at par, with an interest rate of 5 per cent. per annum. The proceeds were used to assist the loan programmes of the Commonwealth and States.

The loan is to be repaid in fifteen annual instalments from 1967 to 1981, but, at the Commonwealth's option, an earlier redemption date may be negotiated on and after 15th December, 1971.

8. **Summary of Loan Transactions, 1957-58 to 1961-62.**—The following table contains a summary of loan transactions on behalf of the Commonwealth and State Governments during the five years 1957-58 to 1961-62.

#### COMMONWEALTH LOAN TRANSACTIONS: SUMMARY

Details	1957-58	1958-59	1959-60	1960-61	1961-62
<b>New loans(a) raised in—</b>					
Australia .. .. £A.'000	195,238	184,683	198,462	203,881	230,075
London .. .. £Stg.'000	..	15,000	12,000	..	..
New York(b) .. .. \$'000	65,091	58,351	60,400	30,517	51,483
Switzerland .. .. francs '000	..	..	60,000	60,000	..
Canada .. .. \$'000	..	..	..	20,000	..
Netherlands .. .. guilders '000	..	..	..	..	40,000
 <b>Miscellaneous debt in Australia(c)</b> £A.'000	 1,229	 3,230	 5,224	 3,676	 4,465
 <b>Net increase in short-term debt—</b>					
Australia—Public .. £A.'000	—10,000	31,000	30,000	—15,000	22,000
Internal .. £A.'000	12,500	5,300	—36,100	17,600	—10,200
 <b>Loans raised for conversion or redemption of existing securities maturing in—</b>					
Australia .. .. £A.'000	344,417	259,249	229,732	281,387	228,944
London .. .. £Stg.'000	16,000	20,000	..	33,925	..
New York .. .. \$'000	..	..	..	..	30,000

(a) Includes loans raised for redemption of Treasury Bills. (b) Includes amounts drawn of \$100,000,000, \$50,000,000, \$54,000,000, \$54,500,000, \$9,230,000 and \$50,000,000 loans from International Bank for Reconstruction and Development. (c) "Over the counter sales", instalment stock, National Savings Bonds, War Savings and Savings Certificates and net increase in debt on account of advance loan subscriptions and, until the discontinuance of sales, War Savings and Savings Stamps and National Savings Stamps.

NOTE.—Minus sign (—) denotes a decrease in debt.

9. **Government Securities on Issue maturing in Australia, Classified by Holder.**—The following table shows details of government securities maturing in Australia classified according to holder as at the 30th June, 1961 and 1962.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATE—  
MATURING IN AUSTRALIA, BY HOLDER(a)

(Source: Reserve Bank of Australia Statistical Bulletin)

Holder	30th June—			
	1961		1962	
	Amount	Proportion of total	Amount	Proportion of total
	£ million	Per cent.	£ million	Per cent.
Reserve Bank of Australia .. ..	487	13.1	463	12.1
Trading banks .. ..	288	7.7	385	10.1
Savings banks .. ..	794	21.4	837	21.9
Life insurance offices .. ..	227	6.1	259	6.8
Fire, marine and general insurance offices	42	1.1	42	1.1
Other private financial institutions—				
Pension and provident funds .. ..	29	0.8	37	1.0
Friendly societies, hospitals and medical funds .. ..	8	0.2	9	0.2
Trustee companies .. ..	78	2.1	74	1.9
Pastoral finance companies .. ..	9	0.2	7	0.2
Money market dealers .. ..	102	2.7	123	3.2
Miscellaneous .. ..	7	0.2	7	0.2
Government financial institutions—				
Insurance offices and funds .. ..	36	1.0	39	1.0
Pension and provident funds .. ..	60	1.6	64	1.7
Public trustees .. ..	17	0.5	18	0.5
Stabilization funds .. ..	3	0.1	..	..
All other(b) .. ..	8	0.2	10	0.3
Public authorities (excluding finance)—				
Commonwealth government (including Commonwealth semi-government) ..	762	20.5	706	18.4
State government .. ..	22	0.6	19	0.5
Local government and State semi-government .. ..	72	1.9	75	1.9
Companies (excluding finance) .. ..	66	1.8	70	1.8
Other holders—				
Marketing boards .. ..	4	0.1	4	0.1
Farmers .. ..	80	2.2	74	1.9
Non-profit organizations .. ..	28	0.8	28	0.7
All other .. ..	487	13.1	479	12.5
<b>Total .. ..</b>	<b>3,716</b>	<b>100.0</b>	<b>3,829</b>	<b>100.0</b>

(a) Total stock inscribed, bonds in circulation, amounts paid up on outstanding applications, in transit claims and advance applications, Commonwealth Treasury Bills, debentures, and Savings Certificates. (b) Includes securities held by Commonwealth Development Bank of Australia.

## § 5. National Debt Sinking Fund

1. *Securities on Issue on behalf of the Commonwealth.*—Particulars relating to the creation of sinking funds are included in issues of the Official Year Book prior to No. 23.

The old sinking funds were merged in the National Debt Sinking Fund on 11th August, 1923. Particulars of receipts and expenditure of the Commonwealth Account for the years 1957–58 to 1961–62 were as follows.

## NATIONAL DEBT SINKING FUND: COMMONWEALTH ACCOUNT

(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
<b>Receipts—</b>					
From Consolidated Revenue .. ..	14,301	14,376	19,533	23,092	25,161
Loans and advances repaid .. ..	2,881	3,213	3,398	3,751	3,834
War service homes money repaid ..	6,566	7,560	9,589	9,808	9,422
Half net profit Commonwealth Bank ..	4,961	5,749	2,808	(a)	(a)
Reparation moneys .. ..	63	20	43	16	8
Interest on investments .. ..	(b) 9,413	(b) 9,015	(b) 8,303	(b) 7,830	(b) 6,617
<i>Loan (International Bank for Reconstruction and Development) Act</i> ..	14,564	7,492	..	..	..
Other contributions .. ..	1	..	..	..	..
<b>Total, Receipts .. ..</b>	<b>52,750</b>	<b>47,425</b>	<b>43,674</b>	<b>44,497</b>	<b>45,042</b>
<b>Expenditure—</b>					
Securities repurchased and redeemed in—					
Australia .. ..	60,001	64,799	59,357	58,539	52,525
London .. ..	318	189	218	594	170
New York .. ..	(c) 5,172	(c) 6,029	(c) 7,969	(c) 8,062	(c) 10,331
<b>Total, Expenditure .. ..</b>	<b>65,491</b>	<b>71,017</b>	<b>67,544</b>	<b>67,195</b>	<b>63,026</b>
Balance at 30th June .. ..	230,344	206,752	182,882	160,184	142,200
Face value of securities repurchased and redeemed in—					
Australia .. ..	61,017	65,421	59,556	59,354	52,686
London .. ..	305	185	220	481	150
New York .. ..	(c) 2,387	(c) 2,783	(c) 3,681	(c) 3,720	(c) 4,767
<b>Total, Face Value .. ..</b>	<b>63,709</b>	<b>68,389</b>	<b>63,457</b>	<b>63,555</b>	<b>57,603</b>

(a) Amounts of £3,352,000 in 1960-61, and £4,487,000 in 1961-62 were transferred to the Commonwealth Consolidated Revenue Fund from the profits of the central banking business of the Reserve Bank.  
(b) Includes interest received under *National Debt Sinking Fund (Special Payment) Act 1951*—£3,936,000 in 1957-58, £3,382,000 in 1958-59, £3,082,000 in 1959-60, £2,799,000 in 1960-61 and £1,906,000 in 1961-62.  
(c) Includes instalment repayments of loans from International Bank for Reconstruction and Development:—1957-58, net cost, £4,733,000, face value, £2,173,000; 1958-59, net cost, £5,688,000, face value, £2,618,000; 1959-60, net cost, £7,235,000, face value, £3,326,000; 1960-61, net cost, £7,563,000, face value, £3,481,000; 1961-62, net cost, £7,910,000, face value, £3,643,000.

2. **Securities on Issue on behalf of States.**—(i) *States, 1961-62.* A sinking fund for the redemption of the securities on issue on behalf of States was established under the Financial Agreement. Details of contributions to be made to this fund are given on page 956. Particulars of the transactions of the National Debt Sinking Fund (States' Account) for each State during the year 1961-62 are shown below.

## NATIONAL DEBT SINKING FUND: STATES' ACCOUNT, 1961-62

(£'000)

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total
<b>Receipts—</b>							
Contributions under Financial Agreement—							
Commonwealth .. ..	2,330	1,565	844	899	653	448	6,739
States .. ..	7,975	6,172	3,033	3,670	2,489	1,319	24,658
Interest from States on cancelled securities .. ..	7	3	2	1	1	1	15
Special contributions by States .. ..	47	54	35	53	4	1	194
Interest on investments, etc. .. ..	9	—1	—3	—2	..	1	4
<b>Total, Receipts .. ..</b>	<b>10,368</b>	<b>7,793</b>	<b>3,911</b>	<b>4,621</b>	<b>3,147</b>	<b>1,770</b>	<b>31,610</b>
<b>Expenditure—</b>							
Securities repurchased and redeemed in—							
Australia .. ..	7,679	6,894	3,082	3,709	2,860	1,667	25,891
London .. ..	183	74	74	265	22	6	624
New York .. ..	2,483	827	742	692	201	112	5,057
<b>Total, Expenditure .. ..</b>	<b>10,345</b>	<b>7,795</b>	<b>3,898</b>	<b>4,666</b>	<b>3,083</b>	<b>1,785</b>	<b>31,572</b>
Balance at 30th June, 1962 .. ..	382	212	164	104	111	66	1,039
Face value of securities repurchased and redeemed in—							
Australia .. ..	7,706	6,897	2,975	3,621	2,860	1,667	25,726
London .. ..	160	65	65	215	20	5	530
New York .. ..	1,104	376	332	320	94	52	2,278
<b>Total, Face Value .. ..</b>	<b>8,970</b>	<b>7,338</b>	<b>3,372</b>	<b>4,156</b>	<b>2,974</b>	<b>1,724</b>	<b>28,534</b>

(ii) *All States, 1957-58 to 1961-62.* The following table is a summary of the transactions of the National Debt Sinking Fund (States' Account) for the years 1957-58 to 1961-62.

## NATIONAL DEBT SINKING FUND: STATES' ACCOUNT

(£'000)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
<b>Receipts—</b>					
Contributions under Financial Agreement—					
Commonwealth .. .. .	5,065	5,386	5,942	6,274	6,739
States .. .. .	17,758	19,161	21,280	22,808	24,658
Interest from States on cancelled securities .. .. .	11	8	14	17	15
Special contributions by States .. .. .	193	239	227	238	194
Interest on investments, etc. .. .. .	36	47	..	19	4
<b>Total, Receipts .. .. .</b>	<b>23,063</b>	<b>24,841</b>	<b>27,463</b>	<b>29,356</b>	<b>31,610</b>
<b>Expenditure—</b>					
Securities repurchased and redeemed in—					
Australia .. .. .	16,567	21,359	24,570	26,291	25,891
London .. .. .	6,043	1,799	797	944	624
New York .. .. .	1,011	1,024	2,342	1,840	5,057
<b>Total, Expenditure .. .. .</b>	<b>23,621</b>	<b>24,182</b>	<b>27,709</b>	<b>29,075</b>	<b>31,572</b>
Balance at 30th June .. .. .	308	967	721	1,002	1,039
<b>Face values of securities Repurchased and Redeemed in—</b>					
Australia .. .. .	16,102	21,435	24,617	26,420	25,726
London .. .. .	4,866	1,330	761	414	530
New York .. .. .	476	481	1,103	871	2,278
<b>Total, Face Value .. .. .</b>	<b>21,444</b>	<b>23,246</b>	<b>26,481</b>	<b>27,705</b>	<b>28,534</b>

## TAXES ON INCOME

1. **General.**—A description of the development of income taxes in Australia appeared in Official Year Book No. 35, page 926. Since July, 1942, the Commonwealth, under the uniform tax arrangement, has been the only authority imposing taxes on income. Taxes on income are assessed and imposed under the *Income Tax and Social Services Contribution Assessment Act 1936-1962* and the *Income Tax and Social Services Contribution Act 1962*. The latter Act is an annual measure and its primary purpose is to declare the rates of tax and contribution payable for the financial year. The rates for the financial year are levied, in the case of individuals, on the income of that year and, in the case of companies, on the income of the preceding year. Thus tax for the financial year 1962-63 is levied on the income of individuals in 1962-63 and on the income of companies in 1961-62.

2. **Present Taxes.**—For individuals, a single tax known as the Income Tax and Social Services Contribution is levied. All companies are liable for primary income tax and, in addition, private companies are subject to tax on undistributed income.

3. **Assessable Income.**—Income taxes in Australia are levied, primarily, on all income derived from Australian sources by any person, rather than on income derived from all sources by Australian residents. Thus a non-resident is taxed on income derived in Australia, while a resident is, in general, not taxed on income (other than dividends) derived from overseas, if the income is taxed in the country in which it is derived.

Certain types of Australian income are exempt from tax in Australia, the more important being (i) pensions, child endowment and other payments under the *Social Services Act* 1947–1962 and the *Tuberculosis Act* 1948, (ii) income from gold-mining and uranium mining, (iii) twenty per cent. of certain mining profits, (iv) dividends paid out of exempt mining profits, and (v) income received from a scholarship, bursary or other education allowance.

No amount is included in assessable income on account of a house occupied by its owner. Profits derived from the sale of property are not assessable income if such property was not purchased with a view to resale at a profit.

Expenses incurred in earning income, certain subscriptions to business associations, and trade union dues, are allowable deductions. Losses incurred in previous years may be carried forward as a deduction.

Because of uncongenial climatic conditions, isolation, and high cost of living, taxpayers living in certain areas are allowed an additional deduction. Two zones have been prescribed, and the allowances are:—Zone A, £270 plus an amount equal to one half of the total deductions allowable to the taxpayer for the maintenance of dependants; and Zone B, £45 plus an amount equal to one twelfth of the deductions allowable to the taxpayer for the maintenance of dependants. A deduction equal to the deduction allowed to residents of Zone A is also allowed to members of the defence forces serving for more than one half of the year of income at declared localities outside Australia. The boundaries of Zones A and B are as defined in the Second Schedule, *Income Tax and Social Services Assessment Act* 1936–1962.

Income Tax and Social Services Contribution is levied on the taxable income remaining after making these deductions and the concessional deductions to which reference is made in the following paragraph.

4. **Concessional Deductions.**—Concessional allowances for dependants, medical expenses, life insurance and superannuation contribution, etc., are made by way of a deduction from income. The maximum deduction allowed for each dependant, for a parent or parent-in-law, or for a housekeeper employed by the taxpayer, for the financial year 1962–63, is shown in the following table.

#### CONCESSIONAL DEDUCTIONS FOR DEPENDANTS, ETC.(a)

(£)

Dependant, etc. (resident)	Maximum deduction
Spouse .. .. .	143
Daughter-housekeeper (b) .. .. .	143
Housekeeper (b) having care of taxpayer's children under 16 years of age .. .. .	143
Parent or parent-in-law .. .. .	143
One child under 16 years of age .. .. .	91
Other children under 16 years of age .. .. .	65
Invalid relative (c) .. .. .	91
Child 16 to 21 years receiving full-time education (d) .. .. .	91

(a) These deductions are allowed only if the dependant, parent or parent-in-law is a resident of Australia. If the dependant is maintained for part only of the year, a partial deduction is allowed. (b) Of a widower or widow. (c) Child, step-child, brother or sister over 16 years of age. The amount of the deduction is reduced by any invalid pension received. (d) The amount of the deduction is reduced by the value of any assistance provided by the Commonwealth or a State.

When the dependant or person maintained derives separate income, the amount of the concessional deduction allowable is reduced as follows. In the case of a spouse or daughter housekeeper, by £2 for every £1 by which the separate net income exceeds £65; for each parent or parent-in-law maintained, by £1 for each £1 of separate income; and for each dependent child or invalid relative, by £2 for every £1 by which the separate net income exceeds £52.

For the 1962-63 financial year, medical expenses paid by a taxpayer who is a resident, in respect of himself or dependants, including children under 21 years of age, up to £150 for each person, are allowed as a concessional deduction. Medical expenses include payments made to a legally qualified medical practitioner, nurse or chemist, or to a hospital, in respect of an illness or operation, payments for dental services, payment for therapeutic treatment and eye tests, expenditure on medical or surgical appliances, artificial limbs or eyes, hearing aids and spectacles, and the remuneration of an attendant of a person who is blind or confined to bed or invalid chair.

Other concessional deductions allowed to resident taxpayers include (i) payments of life, etc., insurance premiums and contributions to superannuation funds and friendly societies, not exceeding an aggregate of £400, (ii) payments to medical or hospital benefits funds, (iii) funeral expenses of a dependant not exceeding £30 and (iv) expenditure incurred for the full-time education of children or dependants who are less than 21 years of age (maximum £100 per child or dependant).

In addition to concessional deductions, all taxpayers (resident and non-resident) are allowed a deduction from income of rates and taxes on land which are annually assessed, gifts to charitable, benevolent or patriotic funds and one-third of amounts paid as calls to certain mining, forestry and oil-prospecting companies. Resident taxpayers only are allowed a deduction from income of the full amount paid as calls and as application and allotment moneys to certain companies engaged in the search for oil in Australia and New Guinea.

**5. Effective Exemption from Tax.**—For the financial years 1950-51 to 1962-63, resident taxpayers without dependants were exempt from Income Tax and Social Services Contribution if their income did not exceed £104. The effect of the deductions for dependants was to exempt taxpayers up to the incomes shown hereunder.

#### RESIDENT TAXPAYERS: EFFECTIVE EXEMPTIONS FROM TAX

(£)

Taxpayer with—					Income Tax and Social Services Contribution— Financial years 1950-51 to 1952-53	Income Tax and Social Services Contribution— Financial years 1953-54 to 1956-57	Income Tax and Social Services Contribution— Financial years 1957-58 to 1962-63
No dependants	..	..	..	..	104	104	104
Wife ..	..	..	..	..	208	234	247
Wife and one child	..	..	..	..	286	312	338
„ „ two children	..	..	..	..	338	364	403
„ „ three children	..	..	..	..	390	416	468
„ „ four children	..	..	..	..	442	468	533

For the 1962-63 financial year, an aged person (i.e., a man who has attained the age of 65 years or a woman who has attained the age of 60 years) is exempt from Income Tax and Social Services Contribution if his net income (i.e., gross income less expenses of earning that income) does not exceed £455. A married couple both of whom qualify by age for the concession are exempt from tax if their combined net incomes do not exceed £1,293.

**6. Rates of Income Tax and Social Services Contribution on Individuals.**—The following table shows the rates of income tax and social services contribution for the financial years 1953-54 to 1962-63.

**INCOME TAX AND SOCIAL SERVICES CONTRIBUTION—INDIVIDUALS: RATES  
OF INCOME TAX AND SOCIAL SERVICES CONTRIBUTION, 1953-54 TO 1962-63**

Total taxable income		1953-54		1954-55 to 1962-63(a)	
Column 1	Column 2	Tax and contribution on amount in column 1	Tax and contribution on each £1 of balance of income	Tax and contribution on amount in column 1	Tax and contribution on each £1 of balance of income
Exceeding—	Not exceeding—				
£	£	£ s. d.	d.	£ s. d.	d.
Nil	100	Nil	1	Nil	1
100	150	0 8 4	4	0 8 4	3
150	200	1 5 0	9	1 0 10	7
200	250	3 2 6	13	2 10 0	11
250	300	5 16 8	17	4 15 10	15
300	400	9 7 6	22	7 18 4	20
400	500	18 10 10	28	16 5 0	26
500	600	30 4 2	33	27 1 8	30
600	700	43 19 2	38	39 11 8	34
700	800	59 15 10	42	53 15 0	38
800	900	77 5 10	46	69 11 8	42
900	1,000	96 9 2	50	87 1 8	46
1,000	1,200	117 5 10	56	106 5 0	52
1,200	1,400	163 19 2	64	149 11 8	59
1,400	1,600	217 5 10	71	198 15 0	65
1,600	1,800	276 9 2	78	252 18 4	71
1,800	2,000	341 9 2	85	312 1 8	77
2,000	2,400	412 5 10	93	376 5 0	85
2,400	2,800	567 5 10	100	517 18 4	92
2,800	3,200	733 19 2	107	671 5 0	99
3,200	3,600	912 5 10	114	836 5 0	105
3,600	4,000	1,102 5 10	121	1,011 5 0	111
4,000	4,400	1,303 19 2	128	1,196 5 0	117
4,400	5,000	1,517 5 10	136	1,391 5 0	124
5,000	6,000	1,857 5 10	144	1,701 5 0	132
6,000	8,000	2,457 5 10	151	2,251 5 0	139
8,000	10,000	3,715 12 6	158	3,409 11 8	145
10,000	16,000	5,032 5 10	165	4,617 18 4	152
16,000	upwards	9,157 5 10	168	8,417 18 4	160

(a) For the 1959-60, 1961-62 and 1962-63 financial years, provision was made for a rebate to reduce by 5 per cent. the income tax and social services contribution otherwise payable.

For primary producers, the rate of Income Tax and Social Services Contribution for the current year is determined by the average of the taxable incomes for the five years up to and including the current year. A taxpayer may elect not to have these averaging provisions applied to his assessment, but the election, once made, is irrevocable. The application of the averaging provisions is limited to that part of the taxable income which does not exceed £4,000, and when the taxable income exceeds £4,000, the balance is taxed at the ordinary rates applicable to that part. When the taxable income is less than £4,000, the rate of tax for averaging purposes is limited to the rate on a taxable income of £4,000.

Commencing with 1953-54, the taxable income, including any abnormal receipts, of actors, artists, composers and inventors, is taxed at the rate appropriate to the normal taxable income plus one-third of the abnormal receipts.

Interest on Commonwealth loans issued prior to 1st January, 1940, is subject to the condition that it shall not be taxed at rates higher than those for 1930-31. Interest on Commonwealth loans issued after 1st January, 1940, and interest on certain State semi-governmental loans issued free of State income tax are subject to a rebate of 2s. for each £1 included in the taxable income.

The minimum amount of Income Tax and Social Services Contribution payable is 10s. and the amounts payable and rebates are calculated to the nearest shilling.

7. *The Income Tax (International Agreements) Act 1953.*—This Act provided for relief from double taxation of incomes flowing between Australia and the United States of America. It also provided similar relief in respect of the United Kingdom, which had been covered by the *Income Tax Assessment Act* since 1947.

8. *Taxes on Specified Incomes.*—The following table shows the Income Tax and Social Services Contribution payable by taxpayers, with various incomes and numbers of dependants, on income derived in each year from 1954-55 to 1962-63.

## COMMONWEALTH TAXES ON INCOME

(£ )

Income	Income Tax and Social Services Contribution				
	1954-55 to 1956-57	1957-58 and 1958-59	1959-60 (a)	1960-61	1961-62 and 1962-63 (a)
INCOME FROM PERSONAL EXERTION—TAXPAYER WITH NO DEPENDANTS					
150 .. .. .	1.05	1.05	1.00	1.05	1.00
200 .. .. .	2.50	2.50	2.40	2.50	2.40
250 .. .. .	4.80	4.80	4.55	4.80	4.55
300 .. .. .	7.90	7.90	7.50	7.90	7.50
350 .. .. .	12.10	12.10	11.50	12.10	11.50
400 .. .. .	16.25	16.25	15.45	16.25	15.45
500 .. .. .	27.10	27.10	25.75	27.10	25.75
600 .. .. .	39.60	39.60	37.60	39.60	37.60
800 .. .. .	69.60	69.60	66.10	69.60	66.10
1,000 .. .. .	106.25	106.25	100.95	106.25	100.95
1,500 .. .. .	225.85	225.85	214.55	225.85	214.55
2,000 .. .. .	376.25	376.25	357.45	376.25	357.45
3,000 .. .. .	753.75	753.75	716.05	753.75	716.05
5,000 .. .. .	1,701.25	1,701.25	1,616.20	1,701.25	1,616.20

(a) Provision was made for a rebate to reduce by 5 per cent. the amount of income tax and social services contribution otherwise payable.



**COMMONWEALTH TAXES ON INCOME—continued**  
(£)

Income				Income Tax and Social Services Contribution				
				1954-55 to 1956-57	1957-58 and 1958-59	1959-60 (a)	1960-61	1961-62 and 1962-63 (a)
<b>INCOME FROM PERSONAL EXERTION—TAXPAYER WITH DEPENDENT WIFE</b>								
150	..	..	..	..	..	..	..	..
200	..	..	..	..	..	..	..	..
250	..	..	..	0.65	0.50	0.50	0.50	0.50
300	..	..	..	1.60	1.25	1.20	1.25	1.20
350	..	..	..	3.60	2.80	2.65	2.80	2.65
400	..	..	..	6.05	5.25	5.00	5.25	5.00
500	..	..	..	13.75	12.65	12.00	12.65	12.00
600	..	..	..	23.85	22.40	21.30	22.40	21.30
800	..	..	..	49.50	47.65	45.25	47.65	45.25
1,000	..	..	..	81.85	79.55	75.55	79.55	75.55
1,500	..	..	..	191.35	188.20	178.80	188.20	178.80
2,000	..	..	..	334.55	330.35	313.85	330.35	313.85
3,000	..	..	..	700.10	694.75	660.00	694.75	660.00
5,000	..	..	..	1,634.10	1,627.35	1,546.00	1,627.35	1,546.00
<b>INCOME FROM PERSONAL EXERTION—TAXPAYER WITH DEPENDENT WIFE AND ONE CHILD</b>								
150	..	..	..	..	..	..	..	..
200	..	..	..	..	..	..	..	..
250	..	..	..	..	..	..	..	..
300	..	..	..	..	..	..	..	..
350	..	..	..	0.95	0.60	0.55	0.60	0.55
400	..	..	..	2.25	1.50	1.45	1.50	1.45
500	..	..	..	7.40	5.80	5.50	5.80	5.50
600	..	..	..	15.60	13.40	12.75	13.40	12.75
800	..	..	..	38.60	35.35	33.60	35.35	33.60
1,000	..	..	..	68.30	64.20	61.00	64.20	61.00
1,500	..	..	..	172.20	165.80	157.50	165.80	157.50
2,000	..	..	..	309.70	302.00	286.90	302.00	286.90
3,000	..	..	..	668.20	658.20	625.30	658.20	625.30
5,000	..	..	..	1,593.80	1,580.35	1,501.35	1,580.35	1,501.35
<b>INCOME FROM PERSONAL EXERTION—TAXPAYER WITH DEPENDENT WIFE AND TWO CHILDREN</b>								
150	..	..	..	..	..	..	..	..
200	..	..	..	..	..	..	..	..
250	..	..	..	..	..	..	..	..
300	..	..	..	..	..	..	..	..
350	..	..	..	..	..	..	..	..
400	..	..	..	0.90	..	..	..	..
500	..	..	..	4.35	2.55	2.40	2.55	2.40
600	..	..	..	11.25	8.00	7.60	8.00	7.60
800	..	..	..	32.10	27.20	25.85	27.20	25.85
1,000	..	..	..	60.10	53.90	51.20	53.90	51.20
1,500	..	..	..	159.40	149.85	142.35	149.85	142.35
2,000	..	..	..	294.35	282.80	268.65	282.80	268.65
3,000	..	..	..	648.25	633.30	601.65	633.30	601.65
5,000	..	..	..	1,566.90	1,546.75	1,469.40	1,546.75	1,469.40

(a) Provision was made for a rebate to reduce by 5 per cent. the amount of income tax and social services contribution otherwise payable.

**9. Pay-as-you-earn.**—(i) *Salary and Wage Earners.* Salary and wage earners are subject to instalment deductions for payment of tax at current rates out of weekly (or fortnightly) earnings. Employers are required to deduct tax and contribution from each payment of wages or salary to an employee at the appropriate rate, in accordance with a prescribed instalment scale. This scale shows the amount to be deducted according to the income and number of dependants of the employee.

Under the group scheme of deduction, which covers most employers of more than ten persons, the amount deducted is remitted to the Taxation Department, and after 30th June each year each employee is given a group certificate by his employer showing the amount of deductions made during the year. This certificate is forwarded to the Taxation Department with the employee's return of income for the year. If the tax assessed on the basis of this return is less than the amount shown on the group certificate, a refund is forwarded to the employee with his assessment. If the tax assessed is greater than the amount shown on the group certificate, the employee is required to pay the balance.

Under the stamp scheme used by small employers, a stamp deduction sheet in two parts is used. Each four weeks, the employer purchases stamps (also in two parts) for the amount of the deductions made each pay day and sticks one part on each half of the sheet. At the end of the year, the employer gives the employee one half of the sheet and sends the other half to the Taxation Department. The employee's half is then used in the same way as a group certificate.

(ii) *Taxpayers with Income other than Salary and Wages.* These taxpayers pay provisional tax in respect of income other than salary and wages. Collection of tax and contribution for the current year are made at the same time as collection and assessment for the previous year are adjusted. The notice of assessment shows an amount of provisional tax and contribution for the current year. This provisional amount is an approximation to the tax and contribution which will be payable after the return of income for the current year has been lodged. It is ascertained by assuming that the income of the current year will be the same as that for the previous year (for which a return has already been lodged), but the rates for the current year are applied to the income and not the rates for the year in which it was derived. The assessment notice shows the provisional tax and contribution paid in the previous year as a credit against the tax and contribution assessed on the basis of the return for that year. On receipt of his assessment, the taxpayer may elect to substitute his own estimate of income for the current year and pay tax on the basis of this estimate. To protect the revenue, a penalty is imposed if the taxpayer elects to pay provisional tax on an estimate of income more than 20 per cent. lower than the income of the previous year and he underestimates his income by more than 20 per cent.

An employee with income of £100 or more from sources other than salaries or wages is required to pay provisional tax in respect of that income.

**10. Lodgment of Returns and Assessment of Tax.**—All persons with assessable income in excess of £104 are required to lodge returns by 31st July each year (31st August for business incomes). The Income Tax and Social Services Contribution payable is assessed, and assessment notices showing the amounts payable are issued during the year following the year of income (in most cases from September to June following the lodgment of the return). The approximate amount payable, however, has already been collected during the income year—from employees by deductions from wages and from non-employees by a provisional tax. The amount shown on the assessment notice is therefore adjusted against the amount already paid and any difference either collected or refunded.

**11. Company Income Taxes.**—(i) *General.* For taxation purposes, companies are divided into two main groups—public and private. A private company is defined as a company in which all the issued shares are held by not more than twenty persons or which is capable of being controlled by not more than seven persons, and which is not a company in which the public is substantially interested or a subsidiary of a public company. All other companies are regarded as public companies. Both public and private companies pay primary Income Tax and Social Services Contribution assessed on a taxable income ascertained on the same principles as for individuals.

Dividends received are assessable income, but resident companies receive a rebate at the average rate on the amount of dividends included in the taxable income. This rebate is not allowed to non-resident companies.

(ii) *Rates of Tax.* The rates of Primary Tax, in the case of public companies, and Primary and Additional Tax for private companies, for the financial years 1956-57 to 1962-63 are shown in the table below.

Super Tax and Undistributed Income Tax ceased to be levied on public companies in the 1951-52 financial year and Additional Income Tax and Social Services Contribution ceased in the 1953-54 financial year. For details, see Official Year Book No. 39, page 846 and No. 40, page 743.

# RATES OF TAX: COMPANIES, 1956-57 TO 1962-63 FINANCIAL YEARS

(Pence per £)

Type of company	Rate of Income Tax and Social Services Contribution—						Rate of Additional Tax on Undistributed Income
	1956-57		1957-58 to 1959-60		1960-61 to 1962-63		1953-54 to 1962-63
	Up to £5,000	On remainder of taxable income	Up to £5,000	On remainder of taxable income	Up to £5,000	On remainder of taxable income	Undistributed amount—additional tax
Private .. .. .	60	84	54	78	60	84	120
Co-operative .. .. .	72	96	66	90	72	96	..
Non-profit(a)—							
Friendly society dispensaries .. .. .	72	96	66	66	72	72	..
Other(b) .. .. .	72	96	66	90	72	96	..
Life insurance—							
Mutual .. .. .	60	84	54	78	60	84	..
Other—							
(1) Mutual income .. .. .	60	84	54	78	60	84	..
(2) Other income(c) .. .. .	(d) 84	96	(d) 78	90	(d) 84	96	..
Other .. .. .	(d) 84	96	(d) 78	90	(d) 84	96	..
Interest paid to a non-resident(e) .. .. .	96	96	90	90	96	96	..

(a) Incomes not exceeding £104 are exempt from tax. (b) Where the taxable income does not exceed £228 (1956-57) or £231 (1957-58 to 1959-60) or £260 (1960-61 to 1962-63) the tax may not exceed eleven-twentieths (1956-57) or one-half (1957-58 to 1962-63) of the amount by which the taxable income exceeds £104. (c) The rate of 84d. (1956-57, 1960-61 to 1962-63) or 78d. (1957-58 to 1959-60) is levied on the amount of £5,000 less the mutual income. (d) For non-resident companies dividends included in this part of taxable income are taxed at 72d. (1956-57, 1960-61 to 1962-63) and 66d. per £1 (1957-58 to 1959-60). (A resident company is allowed a rebate of tax in respect of dividends received.) (e) If the non-resident is not a company, tax is paid only on income in excess of £104.

A private company incurs liability for additional tax on its undistributed income if it fails to make a sufficient distribution of income within a specified period after the close of the year of income. The tax is levied on the undistributed amount which, for practical purposes, is the taxable income less—(a) primary income tax and social services contribution payable; (b) retention allowance (i.e., the proportion of the reduced distributable income which a company may retain without incurring liability for undistributed income tax); and (c) certain dividends paid by the company.

For the financial years 1953-54 to 1958-59, the retention allowance was the following proportion of the reduced distributable income:—on the first £1,000 or part, 50 per cent.; on the next £1,000 or part, 40 per cent.; on the next £1,000 or part, 35 per cent.; on the next £1,000 or part, 30 per cent.; on the balance, 25 per cent.; and 10 per cent. of distributable income from property, except dividends from other private companies.

For 1959-60 to 1962-63, the minimum retention allowance in relation to business profits has been increased to 35 per cent. The new rates are as follows:—on the first £1,000 or part, 50 per cent.; on the next £1,000 or part, 40 per cent.; and on the balance, 35 per cent.

The retention allowance in respect of distributable income from property, except dividends from other private companies, is unchanged at 10 per cent.

For the financial years 1953-54 to 1962-63, the reduced distributable income is calculated by deducting from the taxable income the primary tax payable and the amount of all property income included in taxable income. The additional tax on undistributed income was imposed at a flat rate of 10s. in the £1 on the undistributed amount.

12. *Yield of Income Taxes.*—(i) *Collections from Income Taxes.* The following table shows the collections of taxes imposed on income for the years 1957-58 to 1961-62.

## INCOME TAX COLLECTIONS

(£'000)

Year	Total		
	Common-wealth	State(a)	Total
1957-58 .. .. .	650,419	33	650,452
1958-59 .. .. .	608,660	15	608,675
1959-60 .. .. .	671,294	8	671,302
1960-61 .. .. .	807,266	7	807,273
1961-62 .. .. .	828,150	..	828,150

(a) Amounts shown are arrears of State income taxes existing prior to the introduction of the uniform tax arrangement.

(ii) *Commonwealth Income Tax Assessed.* The amounts of Commonwealth taxes assessed on the income of recent years are shown in the following table. The amounts are shown under the year in which most of the assessments were made, i.e., the year following the income year. Income taxes assessed on income for past years and for the years shown after the close of the normal assessing period are not included.

## COMMONWEALTH INCOME TAXES ASSESSED

(£'000)

Tax	1956-57	1957-58	1958-59	1959-60	1960-61
Individuals—					
Income Tax and Social Services Contribution .. .. .	(a) 354,168	390,596	355,064	378,219	426,476
Companies—					
Income Tax .. .. .	210,664	212,707	214,683	231,610	292,856
Additional Tax on Undistributed Income of Private Companies .. .. .	2,951	2,512	1,835	1,274	1,460
Total .. .. .	567,783	605,815	571,582	611,103	720,792

(a) Includes assessments issued to 30th June, 1960.

13. **Commonwealth Income Tax and Social Services Contribution Assessments.**—(i) 1960-61 *Assessment Year*. The following tables show, for the 1960-61 assessment year, the number of taxpayers, income, and net income tax and social services contribution assessed for individuals and resident and non-resident companies. For further information of this nature, see the annual bulletin *Finance, Part II.—Commonwealth Taxation* (No. 52) issued by this Bureau.

**COMMONWEALTH INCOME TAX AND SOCIAL SERVICES CONTRIBUTION 1960-61 ASSESSMENT(a): NUMBER OF TAXPAYERS, ACTUAL INCOME(b), TAXABLE INCOME(c) AND NET INCOME TAX AND SOCIAL SERVICES CONTRIBUTION ASSESSED—INDIVIDUALS**

(Incomes derived in the year 1959-60)

Grade of actual income(b) and State or Territory of assessment	Number of taxpayers			Actual income (b)	Taxable income (c)			Net Income Tax and Social Services Contribution assessed
	Males	Females	Total	Total	Salary and wages	Other income	Total	
£      £	No.	No.	No.	£'000	£'000	£'000	£'000	£'000
105- 199 ..	55,031	104,448	159,479	24,762	19,694	3,945	23,639	187
200- 299 ..	61,856	121,819	183,675	45,889	34,515	7,947	42,462	732
300- 399 ..	81,854	133,703	215,557	75,558	56,517	11,831	68,348	1,999
400- 499 ..	93,426	144,438	237,864	106,955	77,568	17,537	95,105	3,818
500- 599 ..	102,220	159,036	261,256	143,824	103,329	23,153	126,482	6,468
600- 699 ..	109,447	178,702	288,149	187,052	135,757	27,056	162,813	9,849
700- 799 ..	143,509	140,790	284,299	213,092	148,447	30,842	179,289	12,187
800- 899 ..	230,494	91,245	321,739	273,925	184,377	34,211	218,588	16,069
900- 999 ..	304,276	56,616	360,892	342,962	228,436	36,076	264,512	20,933
1,000-1,099 ..	321,175	34,646	355,821	373,565	244,860	37,084	281,944	24,046
1,100-1,199 ..	283,567	23,485	307,052	352,544	228,100	36,227	264,327	24,193
1,200-1,299 ..	230,896	16,318	247,214	308,415	195,106	34,712	229,818	22,453
1,300-1,399 ..	178,895	12,502	191,397	257,705	158,658	33,363	192,021	19,921
1,400-1,499 ..	136,861	9,414	146,275	211,786	127,516	31,070	158,586	17,480
1,500-1,999 ..	336,068	28,667	364,735	619,352	339,775	128,692	468,467	59,128
2,000- 2,999 ..	152,587	19,319	171,906	407,195	164,299	158,044	322,343	53,831
3,000- 3,999 ..	41,309	6,691	48,000	164,144	45,631	91,091	136,722	30,186
4,000- 4,999 ..	18,264	2,941	21,205	94,184	22,028	58,630	80,658	21,464
5,000- 9,999 ..	20,947	3,494	24,441	159,398	30,692	109,964	140,656	48,805
10,000-14,999 ..	2,633	467	3,100	36,870	6,423	27,118	33,541	15,038
15,000 and over	1,275	195	1,470	34,728	4,983	26,240	31,223	16,627
Central Office ..	8,296	5,938	14,234	41,891	8,076	27,974	36,050	11,161
New South Wales	1,090,003	491,374	1,581,377	1,706,867	1,021,080	338,853	1,359,933	164,905
Victoria ..	824,112	399,761	1,223,873	1,302,791	770,204	280,227	1,050,431	128,624
Queensland ..	402,724	153,260	555,984	558,849	286,401	142,658	429,059	49,371
South Australia	268,118	115,218	383,336	380,307	222,373	79,530	301,903	33,222
Western Australia	197,342	77,586	274,928	274,507	147,779	66,034	213,813	23,452
Tasmania ..	93,454	36,823	130,277	129,281	75,676	24,577	100,253	10,740
Nor. Territory ..	6,258	1,907	8,165	10,834	5,789	1,349	7,138	861
Aust. Cap. Ter.	16,283	7,069	23,352	28,578	19,333	3,631	22,964	3,078
<b>Total, Residents</b>	<b>2,906,590</b>	<b>1,288,936</b>	<b>4,195,526</b>	<b>4,433,905</b>	<b>2,556,711</b>	<b>964,833</b>	<b>3,521,544</b>	<b>425,414</b>
<b>Total, Non-residents ..</b>	<b>2,021</b>	<b>1,827</b>	<b>3,848</b>	<b>5,319</b>	<b>914</b>	<b>4,029</b>	<b>4,943</b>	<b>1,062</b>
<b>Total, Residents and Non-residents ..</b>	<b>2,908,611</b>	<b>1,290,763</b>	<b>4,199,374</b>	<b>4,439,224</b>	<b>2,557,625</b>	<b>968,862</b>	<b>3,526,487</b>	<b>426,476</b>

(a) Assessments in respect of 1959-60 incomes issued to 30th September, 1961. Assessments issued after that date are not included.

(b) Actual income is defined briefly as "Gross income including exempt income less expenses incurred in gaining that income".

(c) Taxable income is the income remaining after deducting from assessable income all allowable deductions.

**COMMONWEALTH INCOME TAX AND SOCIAL SERVICES CONTRIBUTION  
1960-61 ASSESSMENT(a): NUMBER OF TAXPAYERS, ACTUAL INCOME(b),  
TAXABLE INCOME(c) AND NET TAX ASSESSED—RESIDENT AND NON-  
RESIDENT COMPANIES**

(Income derived in the year 1959-60)

Grade of taxable income(c) and State or Territory of assessment				Number of taxpayers	Actual income(b)	Taxable income(c)	Net tax assessed(d)
£	£			No.	£'000	£'000	£'000
1- 999	..	..	..	15,192	7,462	5,351	1,326
1,000- 4,999	..	..	..	18,479	57,522	49,783	11,901
5,000- 9,999	..	..	..	7,699	55,168	53,355	14,074
10,000- 19,999	..	..	..	4,203	62,263	58,852	17,144
20,000- 49,999	..	..	..	3,009	95,578	93,435	29,107
50,000- 99,999	..	..	..	1,100	78,758	76,649	24,004
100,000-199,999	..	..	..	685	96,240	94,535	30,383
200,000-499,999	..	..	..	399	121,795	119,025	38,281
500,000-999,999	..	..	..	121	88,129	85,914	26,246
1,000,000 and over	..	..	..	109	349,039	299,464	100,390
Central Office	..	..	..	3,397	505,562	444,998	146,638
New South Wales	..	..	..	21,035	219,775	213,493	63,160
Victoria	..	..	..	14,536	151,312	148,457	43,434
Queensland	..	..	..	3,944	48,431	46,569	15,247
South Australia	..	..	..	4,572	43,775	42,888	12,598
Western Australia	..	..	..	1,775	22,807	20,348	6,713
Tasmania	..	..	..	953	11,886	11,694	3,674
Northern Territory	..	..	..	105	933	863	260
Australian Capital Territory	..	..	..	679	7,473	7,053	1,132
<b>Total</b>	..	..	..	<b>50,996</b>	<b>1,011,954</b>	<b>936,363</b>	<b>292,856</b>

(a) Assessments in respect of 1959-60 incomes issued to 31st December, 1961. Assessments issued after that date are not included.

(b) Actual income is defined briefly as "Gross income including exempt income less expenses incurred in gaining that income".

(c) Taxable income is the income remaining after deducting from assessable income all allowable deductions.

(d) Excludes additional tax levied on the undistributed income of private companies, £1,460,000.

(ii) *Commonwealth Income Tax on Residents—Grades of Income.* Individual income taxes assessed on residents are distributed according to grades of actual income in the following table. The year shown in each case refers to the year in which assessment was made, i.e., the year following the income year. The figures relate only to assessments made on the income of the previous year during the normal assessing period. Assessments issued after the normal assessing period are not included.

**COMMONWEALTH INCOME TAXES AND SOCIAL SERVICE CONTRIBUTIONS:  
RESIDENT INDIVIDUALS, BY GRADES OF ACTUAL INCOME<sup>(a)</sup>**

Grade of actual income		1957-58		1958-59		1959-60		1960-61	
		No. of tax-payers	Tax	No. of tax-payers	Tax	No. of tax-payers	Tax	No. of tax-payers	Tax
£	£		£'000		£'000		£'000		£'000
105-199 ..		153,674	192	158,213	202	157,786	194	159,479	187
200-299 ..		191,438	828	188,743	827	185,069	786	183,675	732
300-399 ..		232,726	2,323	228,533	2,285	225,492	2,208	215,557	1,999
400-499 ..		262,023	4,540	256,931	4,427	250,645	4,245	237,864	3,818
500-599 ..		311,057	8,233	306,044	8,090	296,189	7,774	261,256	6,468
600-699 ..		295,767	10,376	295,996	10,366	297,370	10,500	288,149	9,849
700-799 ..		332,640	14,207	318,592	13,413	303,738	13,066	284,299	12,187
800-899 ..		396,438	20,317	388,292	18,856	376,967	18,902	321,739	16,069
900-999 ..		383,557	23,162	391,561	22,865	395,366	23,259	360,892	20,933
1,000-1,099 ..		313,847	22,607	327,691	22,593	346,733	23,456	355,821	24,046
1,100-1,199 ..		230,074	19,673	244,267	19,903	266,226	21,424	307,052	24,193
1,200-1,299 ..		167,944	16,777	177,799	16,857	198,622	18,526	247,214	22,453
1,300-1,399 ..		124,992	14,401	133,529	14,750	149,980	16,100	191,397	19,921
1,400-1,499 ..		89,650	11,874	94,540	12,148	110,477	13,701	146,275	17,480
1,500-1,999 ..		211,992	38,724	224,489	39,708	265,013	45,733	364,735	59,128
2,000-2,999 ..		113,643	40,897	109,571	38,476	127,985	43,667	171,906	53,831
3,000-3,999 ..		38,205	26,869	34,297	23,975	38,367	26,194	48,000	30,186
4,000-4,999 ..		18,037	20,084	15,512	17,199	17,297	18,706	21,205	21,464
5,000-9,999 ..		22,772	50,833	18,403	40,127	19,669	41,973	24,441	48,805
10,000-14,999 ..		3,643	19,101	2,553	13,114	2,487	12,721	3,100	15,038
15,000-29,000 ..		1,668	16,008	988	9,319	971	9,337	1,269	11,424
30,000-49,999 ..		215	4,227	130	2,522	123	2,384	144	2,808
50,000 and over		72	2,862	44	1,947	43	2,020	57	2,395
<b>Total ..</b>		<b>3,896,074</b>	<b>389,115</b>	<b>3,916,718</b>	<b>353,969</b>	<b>4,032,615</b>	<b>376,876</b>	<b>4,195,526</b>	<b>425,414</b>

(a) Actual income is defined briefly as "Gross income including exempt income less expenses incurred in gaining that income".

## CHAPTER XXII

### RURAL INDUSTRY

**NOTE.**—This chapter, which incorporates the three separate chapters Agricultural Production, Pastoral Production and Farmyard, Dairy and Bee Products of previous issues, is divided into four major parts:—

- Introduction, dealing with general rural activity in Australia;
- Agricultural Production;
- Pastoral Production; and
- Other Rural Industries, which includes the dairying, poultry and bee industries.

For greater detail on the subjects dealt with in this chapter, see the annual bulletins *Primary Industries, Part I.—Rural Industries, Part II.—Non-Rural Industries and Value of Production, and Secondary Industries* (butter, cheese, etc., factories) issued by this Bureau. Current information on commodities produced is obtainable in the *Quarterly Summary of Australian Statistics, Monthly Review of Business Statistics, Monthly Bulletin of Production Statistics and Digest of Current Economic Statistics* (monthly). The series of bulletins *Classification of Rural Holdings by Size and Type of Activity, 1959–60*, shows particulars of rural holdings classified by size, nature and area of crops, and numbers of livestock, and also according to main type of activity. The mimeographed annual *Report on Food Production and the Apparent Consumption of Foodstuffs in Australia* contains details of the production and utilization of foodstuffs. The following mimeographed publications also contain considerable detail on the particular subjects dealt with.

**General.**—*Value of Production and Indexes of Price and Quantum of Farm Production* (annual), *Value of Primary Production (Preliminary Statement)* (annual), *Tractors on Rural Holdings* (annual), *Tractors on Rural Holdings, 31st March, 1960* (detailed information), *New Tractors: Receipts, Sales and Stocks* (quarterly), and *New Agricultural Machinery* (quarterly).

**Agricultural Production.**—*Rural Land Use and Crop Production* (annual), *The Wheat Industry* (two per year), *The Fruit Growing Industry* (annual), and *Agricultural Statistics* (annual).

**Pastoral Production.**—*Livestock Statistics* (annual), *Livestock Numbers* (annual), *The Meat Industry* (monthly), *Wool Production* (annual), and *Wool Production and Utilization* (annual).

**Other Rural Production.**—*The Dairying Industry* (monthly and half-yearly), *Livestock Statistics* (annual), *Livestock Numbers* (annual), *Manufacturing Industries No. 21.—Butter, Cheese and Condensed, Concentrated, etc., Milk* (annual), *Production Summary No. 36.—Preserved Milk Products* (monthly), *Production Summary No. 55.—Butter and Cheese* (monthly), and *Bee-farming* (annual).

Values of Australian overseas trade shown throughout this chapter are expressed as £A. f.o.b. port of shipment.

#### INTRODUCTION: RURAL ACTIVITY.

##### § 1. Number and Area of Rural Holdings.

**1. Number and Area.**—A holding in Australia has been defined by statisticians on a more or less uniform basis, and discrepancies which exist are not of sufficient importance to prevent comparisons. For the purpose of these statistics, a holding has been defined as land of one acre or more in extent, used in the production of agricultural produce, the raising of livestock or the products of livestock.

There are considerable fluctuations from time to time in the numbers of very small holdings, and it is very difficult to determine in some cases whether or not they are rural holdings within the definition.

In addition, in the very dry parts, such as the far west of New South Wales and Queensland and the remoter parts of South Australia and Western Australia, there are large areas of marginal lands sporadically occupied for extensive grazing under short-term lease or other arrangement, and the areas so occupied tend to fluctuate with the seasons. Similarly, there are rugged areas in the mountain country of some States which are also occasionally occupied.

The following table shows the recorded number and area of the holdings in each State for the seasons 1957–58 to 1961–62.



## RURAL HOLDINGS: NUMBER AND AREA

Season	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
NUMBER OF RURAL HOLDINGS									
1957-58 ..	78,120	69,590	43,457	27,971	21,593	11,389	230	225	252,575
1958-59 ..	77,857	69,770	43,290	28,105	21,563	11,374	243	221	252,423
1959-60 ..	77,499	69,778	42,912	28,527	21,832	11,202	269	224	252,243
1960-61 ..	76,871	69,623	43,155	28,711	21,922	11,201	275	224	251,982
1961-62 ..	76,949	69,866	43,287	28,886	22,082	11,117	284	217	252,688
TOTAL AREA OF RURAL HOLDINGS ( <sup>'000</sup> acres)									
1957-58 ..	173,278	37,822	368,833	152,045	236,667	6,547	167,210	392	1,142,794
1958-59 ..	172,978	37,755	370,240	152,312	238,264	6,573	156,897	381	1,135,400
1959-60 ..	172,721	37,737	371,794	155,437	244,619	6,511	158,806	382	1,148,007
1960-61 ..	172,697	37,934	373,995	156,456	247,737	6,510	161,099	374	1,156,802
1961-62 ..	172,327	37,754	374,501	156,897	252,783	6,551	171,245	377	1,172,435

2. **Classification by Size and Type of Activity.**—Some of the information obtained from the 1959-60 Agricultural and Pastoral Census was classified by size of principal characteristics (area of holdings, area of sown grasses and clovers, area of selected crops and numbers of livestock). In addition, all holdings were classified according to type of activity. Tables showing this information, for statistical divisions and States, and an outline of the methods used have been published in a series of bulletins, *Classification of Rural Holdings by Size and Type of Activity*, 1959-60. Similar information on size classification for each State was published in a series of bulletins for the year 1955-56.

## § 2. Employment on Rural Holdings

1. **Persons Engaged.**—The following table shows, for each State, the recorded number of males working on rural holdings at 31st March, 1962. Particulars for females are not available. Additional particulars relating to the number of males employed in agriculture up to 1941-42 are shown in Official Year Book No. 36, page 852, and previous issues. Similar details for later years are not available.

## MALES(a) ENGAGED ON RURAL HOLDINGS AT 31st MARCH, 1962

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.(b)	A.C.T.	Aust.
Permanent—									
Owners, lessees or share-farmers .. ..			45,746	24,061	20,555	7,614	239	165	
Relatives of owner, lessee or share-farmer over 14 years of age, not receiving wages or salary .. ..			3,426	1,734	1,367	93	17	20	
Employees, including managers and relatives working for wages or salary .. ..	(c)	(c)	18,254	7,947	9,305	4,090	685	136	(c)
Total, Permanent Males .. ..			67,426	33,742	31,227	11,797	941	321	
Temporary .. ..			10,950	15,140	2,956	5,332	1,502	34	
Total, Males .. ..			78,376	48,882	34,183	17,129	2,443	355	

(a) Details for females not available.

(b) 1,326 male full-blood aboriginals employed are included as temporary employees.

(c) Not available; subject to investigation.

The next table shows the number of persons working full-time on rural holdings in Australia at 31st March of the five years 1954 to 1958. Data for subsequent years are the subject of investigation and are not available at this stage.

**PERSONS ENGAGED ON RURAL HOLDINGS: AUSTRALIA(a)**

Particulars	31st March—				
	1954(b)	1955(b)	1956	1957	1958
<b>Permanent—</b>					
<b>Males—</b>					
Owners, lessees or share-farmers ..	241,149	240,879	245,621	244,111	241,247
Relatives of owner, lessee or share-farmer over 14 years of age, not receiving wages or salary ..	22,736	23,529	21,232	21,734	21,535
Employees, including managers and relatives working for wages or salary ..	93,748	91,479	89,334	90,599	91,308
Total, Males .. ..	357,633	355,887	356,187	356,444	354,090
,, Females .. ..	49,782	46,656	42,104	41,373	39,763
Total, Permanent ..	407,415	402,543	398,291	397,817	393,853
<b>Temporary—</b>					
Total, Males .. ..	86,644	87,400	84,607	86,267	93,142
,, Females .. ..	8,365	9,238	9,638	11,324	12,986
Total, Temporary ..	95,009	96,638	94,245	97,591	106,128
Grand Total .. ..	502,424	499,181	492,536	495,408	499,981

(a) Australian totals for years subsequent to 1958 are not available.

(b) Excludes Northern Territory.

**2. Salaries and Wages Paid.**—Particulars of salaries and wages paid to employees (including amounts paid to contractors) working full-time on rural holdings are shown below for the year 1961-62. Data for New South Wales and Victoria, and hence Australia, are not available.

**EMPLOYEES ON RURAL HOLDINGS: SALARIES AND WAGES(a) PAID,  
1961-62  
(£'000)**

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
Permanent—Males ..	(h)	(b)	14,691	5,863	6,888	3,021	589	174	(b)	
Females ..			1,146	229						69
Temporary(c)—Males ..			17,761	4,185	4,385	1,819	423	75		
Females ..										401
Total .. ..			33,598	10,678	11,273	5,234	1,071	269		

(a) Includes value of keep. amounts paid to contractors.

(b) Not available; subject to investigation.

(c) Includes

Similar information for Australia is given below for the years 1953-54 to 1957-58. Particulars for subsequent years are the subject of investigation and therefore not available at this stage.

**EMPLOYEES ON RURAL HOLDINGS: SALARIES AND WAGES(a) PAID,  
AUSTRALIA(b)  
(£'000)**

Particulars	1953-54(c)	1954-55(c)	1955-56	1956-57	1957-58
Permanent—Males ..	52,240	53,951	55,752	58,707	63,397
Females ..	2,406	2,468	2,456	2,456	2,793
Temporary(d)—Males ..	51,282	53,855	53,200	54,431	59,982
Females ..	1,190	1,323	1,476	1,498	1,656
<b>Total .. ..</b>	<b>107,118</b>	<b>111,597</b>	<b>112,884</b>	<b>117,092</b>	<b>127,828</b>

(a) Includes value of keep. (b) Australian totals for years subsequent to 1957-58 are not available. (c) Excludes Northern Territory. (d) Includes amounts paid to contractors.

**3. Persons Residing Permanently on Holdings.**—Particulars of persons (of all ages) residing permanently on rural holdings at 31st March, 1962, are shown below for all States except New South Wales.

**PERSONS (OF ALL AGES) RESIDING PERMANENTLY ON RURAL HOLDINGS,  
31st MARCH, 1962**

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Males ..	(a)	142,445	105,918	59,441	48,868	27,045	1,303	515	(a)
Females ..		124,388	86,272	52,243	39,888	24,056	572	426	
<b>Total ..</b>		<b>266,833</b>	<b>192,190</b>	<b>111,684</b>	<b>88,756</b>	<b>51,101</b>	<b>1,875</b>	<b>941</b>	

(a) Not available; subject to investigation.

Similar particulars for Australia as a whole for the years 1954 to 1958 are shown below. Details for later years are subject to investigation and therefore not available at this stage.

**PERSONS (OF ALL AGES) RESIDING PERMANENTLY ON RURAL HOLDINGS,  
AUSTRALIA(a)**

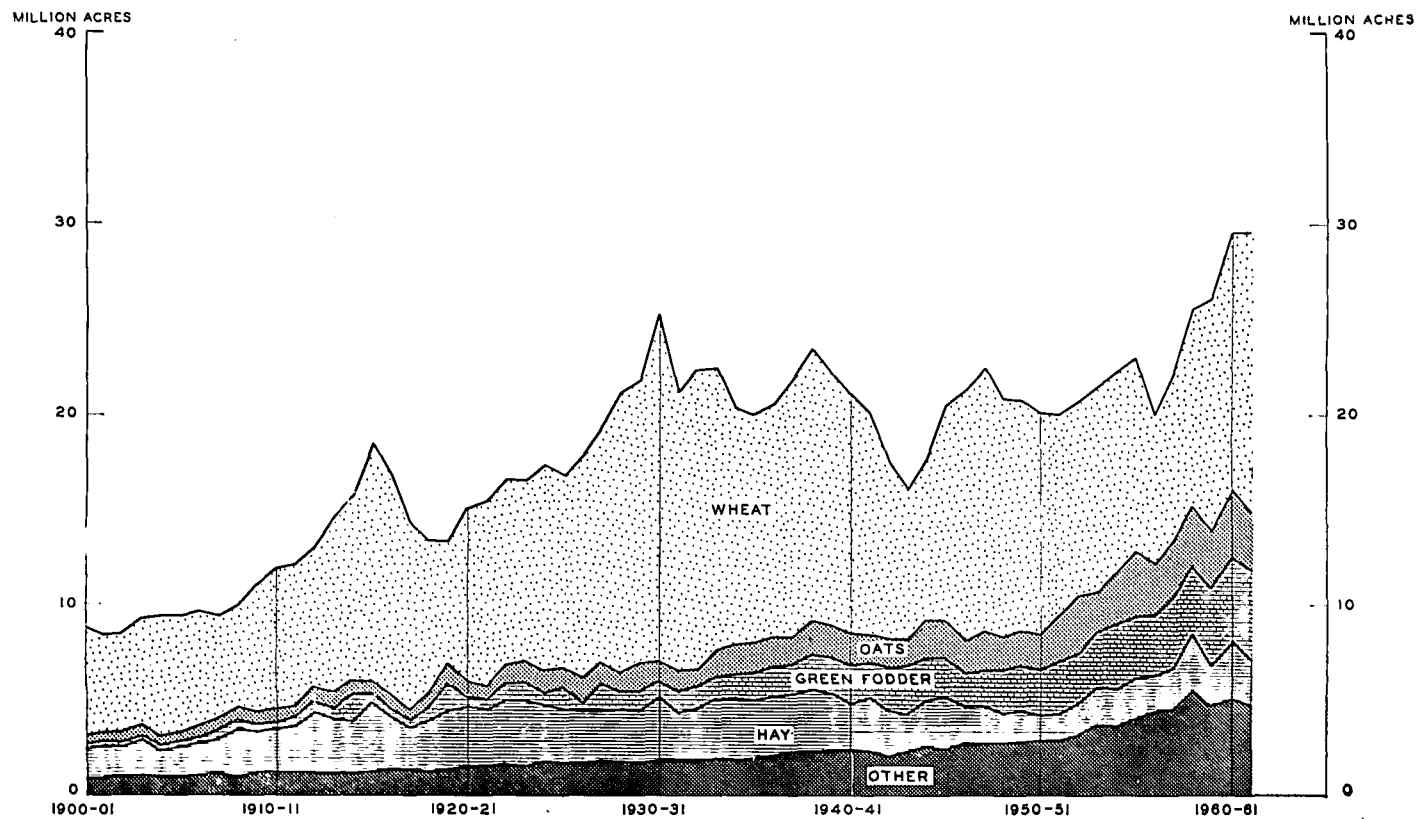
Particulars	31st March—				
	1954(b)	1955(b)	1956	1957	1958
Males .. ..	543,740	549,734	557,274	563,894	560,196
Females .. ..	453,503	462,163	469,805	475,587	474,333
<b>Total .. ..</b>	<b>997,243</b>	<b>1,011,897</b>	<b>1,027,079</b>	<b>1,039,481</b>	<b>1,034,529</b>

(a) Australian totals for years subsequent to 1958 are not available. (b) Excludes Northern Territory.

**§ 3. Technical Aspects of Rural Industry.**

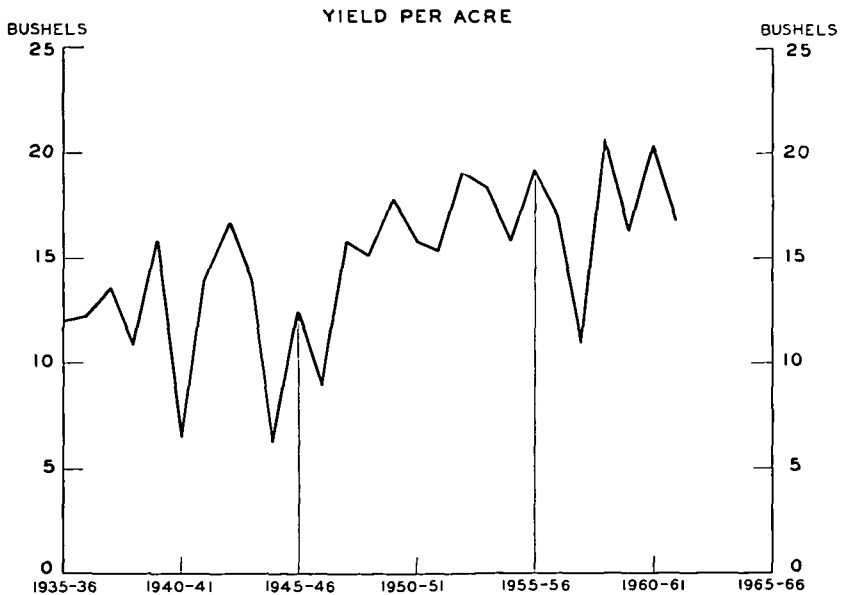
**1. Farm Machinery on Rural Holdings.**—The history of the development of large-scale field crops and sown pastures in Australia is essentially also the history of the mechanization of the rural industries. This may be divided into four phases.

# AREA OF CROPS: AUSTRALIA, 1900-01 TO 1961-62

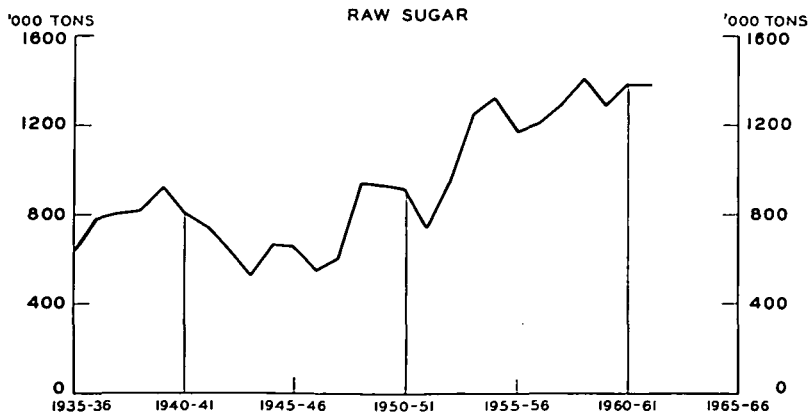
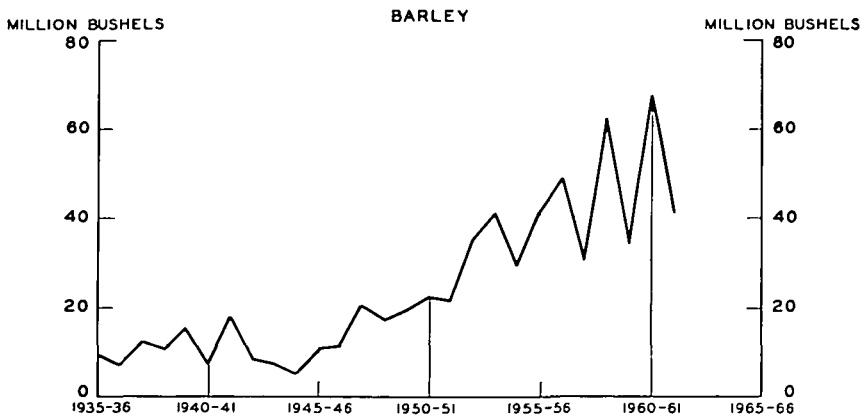
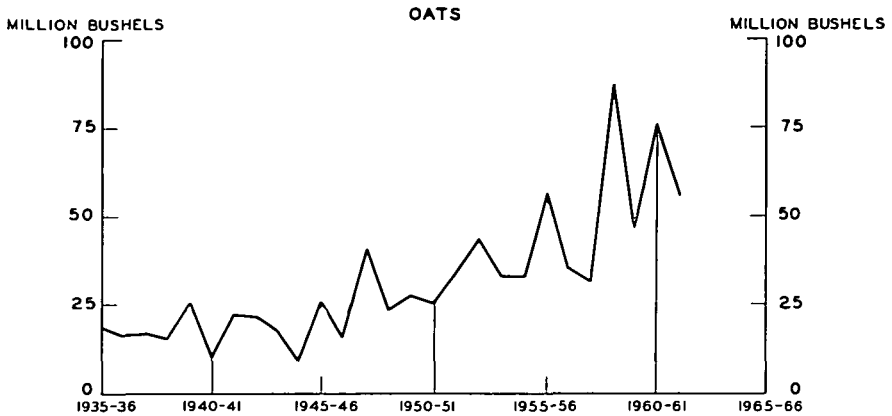


# WHEAT FOR GRAIN

## AUSTRALIA, 1935-36 TO 1961-62

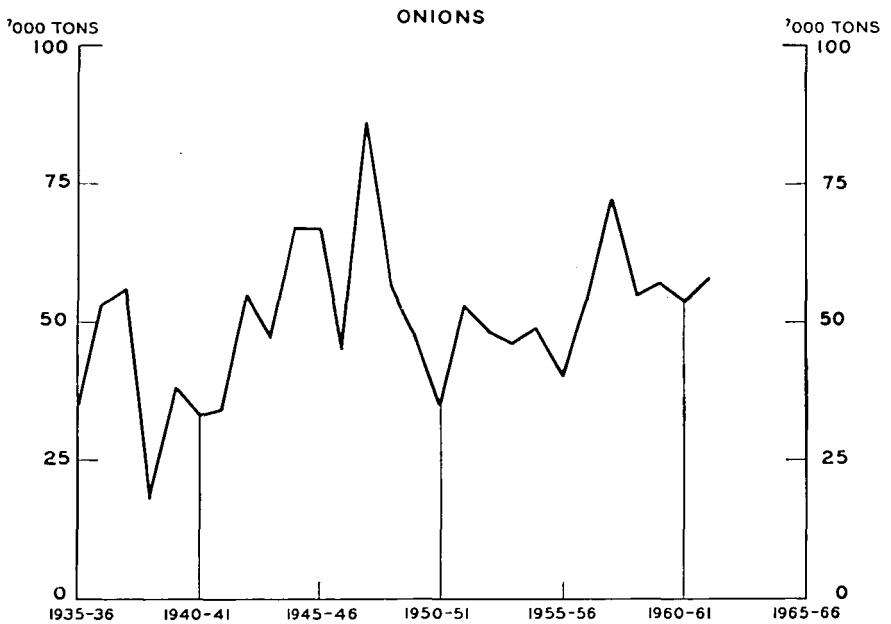
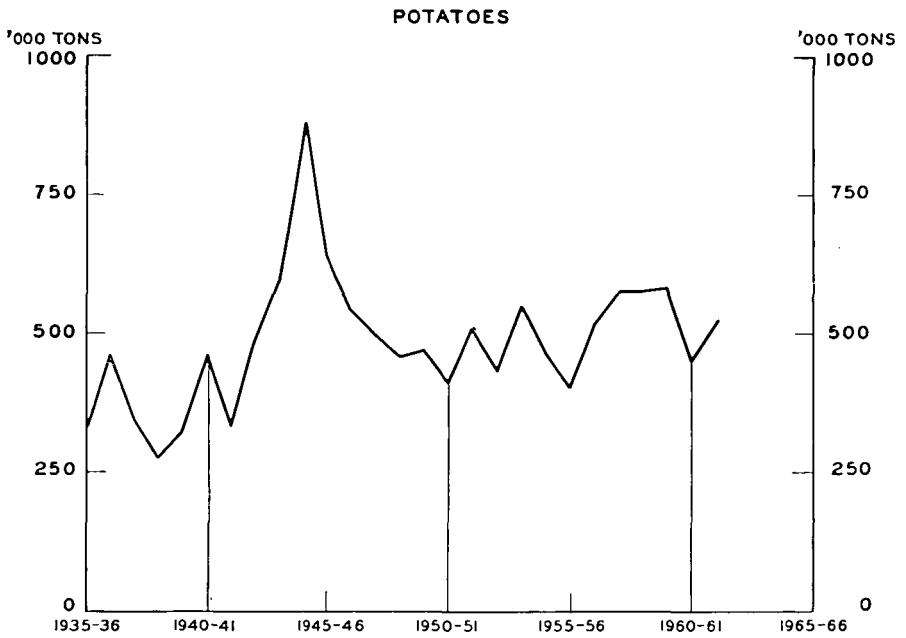


# PRODUCTION OF OATS, BARLEY AND RAW SUGAR AUSTRALIA, 1935-36 TO 1961-62



# PRODUCTION OF POTATOES AND ONIONS

## AUSTRALIA, 1935-36 TO 1961-62



The first phase extended from initial settlement to the mid-nineteenth century, when agriculture was primarily local and non-commercial, and confined by hand methods to small areas and low production per farm worker.

The invention of an effective wheat stripper in South Australia in 1843, and the extension of its use into Victoria and New South Wales, however, greatly increased the area which could be harvested in a season. This initiated the second phase, which continued with the development of stump-jump implements in the 1870's, and the scrub roller and mulleniser in the 1890's. These later developments made possible an extension of the wheat belt into the drier mallee lands of Victoria and South Australia. By the turn of the century, machinery had thus been developed to conduct all cropping operations on an extensive basis.

The third major change in farm machinery followed the 1914-18 War, when tractor power became increasingly available in a variety of models and sizes. The increase in numbers of tractors on rural holdings and higher operating speeds led in turn to new and improved types of farm machinery drawn by tractors. These trends were interrupted by the economic depression of the 1930's.

After the 1939-45 War, there was a widespread expansion of labour-saving machinery and devices in all sectors of rural industry. Clearing methods were extended with the bulldozer, log, chain and hi-ball units, and cultivation was improved by means of large disc ploughs and disc harrows, and seeding and harvesting machinery. These methods were extended to crops for which methods involving greater use of manpower (manual labour) had previously been employed. Milking machines almost entirely replaced hand milking on dairy farms, and labour-saving machinery was introduced into farm and station development and maintenance operations. These operations included fencing, bulk transport of grain and fodder, pasture treatments, fodder conservation and pasture improvement.

The table below shows data for the principal types of farm machinery on rural holdings in the several States and Territories at 31st March, 1962. A more detailed analysis of tractors on rural holdings according to horse-power, type of fuel used and age of tractor was published in Statistical Bulletin: *Tractors on Rural Holdings—Australia, 31st March, 1960*, issued on 8th September, 1961.

FARM MACHINERY ON RURAL HOLDINGS, 31st MARCH, 1962

Type of machinery	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Cultivating—									
Ploughs (all types including disc cultivator ploughs)(a)	89,844	87,058	68,793	33,994	25,474	17,994	154	292	323,603
Rotary hoes ..	14,075	9,777	5,312	4,873	2,997	1,717	67	50	38,868
Seeding and Planting—									
Grain drills—									
Combine type ..	25,890	19,016	10,983	15,221	12,298	1,256	..	79	84,743
Other types ..	5,733	9,709	2,350	4,865	3,857	2,643	..	34	29,191
Fertilizer distributors and broadcasters ..	20,208	29,349	10,681	8,271	9,019	5,172	..	121	82,821
Harvesting—									
Grain and seed headers, strippers and harvesters	19,021	14,065	6,993	12,831	11,293	656	..	32	64,891
Mowers ..	26,552	32,604	13,635	8,531	7,380	5,851	..	108	94,661
Hay rakes—									
Side delivery ..	10,138	12,674	2,898	4,220	3,820	1,977	..	50	35,777
Buck ..	2,243	4,375	3,247	975	465	1,027	..	15	12,347
Dump ..	5,135	5,151	6,030	1,370	1,332	1,233	..	16	20,267
Pick-up balers ..	7,968	9,282	1,701	3,534	2,776	1,346	..	40	26,647
Stationary hay presses ..	2,258	2,213	379	655	721	382	..	3	6,611
Potato diggers ..	1,169	2,028	1,079	617	299	1,020	..	11	6,223
Forage harvesters ..	1,431	892	621	525	408	186	..	10	4,073
Peanut pickers ..	15	..	240	..	..	..	..	..	255
Other—									
Tractors (wheel and crawler)	70,251	67,418	56,194	31,788	28,006	9,997	208	207	264,069
Shearing machines (number of stands) ..	68,778	38,758	18,957	27,278	19,381	4,113 (b)	13	299	177,577
Milking machines (number of units) ..	43,369	95,661	47,486	18,831	10,562	12,220	..	99	228,228
Hammer mills ..	5,056	3,554	5,782	1,242	1,555	301	..	18	17,508

(a) At 31st March, 1961.

(b) At 30th June.



The next table shows particulars of farm machinery on rural holdings in Australia at 31st March, 1958 to 1962.

### FARM MACHINERY ON RURAL HOLDINGS: AUSTRALIA

Type of machinery	31st March—				
	1958	1959	1960	1961	1962
<b>Cultivating—</b>					
Ploughs (all types including disc cultivator ploughs) .. ..	a 340,266	(b)	(b)	323,603	(b)
Rotary hoes .. ..	35,444	36,611	34,159	36,896	38,868
<b>Seeding and planting—</b>					
Grain drills—					
Combine type .. ..	79,097	81,493	81,795	82,277	84,743
Other types .. ..	28,263	27,422	29,394	28,776	29,191
Fertilizer distributors and broadcasters .. ..	74,484	76,714	78,181	80,654	82,821
<b>Harvesting—</b>					
Grain and seed headers, strippers and harvesters .. ..	61,112	61,361	64,070	63,158	64,891
Mowers .. ..	(b)	84,240	(b)	(b)	94,661
Hay rakes—					
Side delivery .. ..	(b)	28,105	(b)	(b)	35,777
Buck .. ..		11,613			12,347
Dump .. ..		22,472			20,267
Pick-up balers .. ..	17,957	20,472	22,496	25,264	26,647
Stationary hay presses .. ..	8,725	8,734	7,769	7,411	6,611
Potato diggers .. ..	(b)	6,818	(b)	(b)	6,223
Forage harvesters .. ..		1,807			4,073
Peanut pickers .. ..		192			255
<b>Other—</b>					
Tractors—					
Wheel .. ..	205,295	212,996	221,886	253,515	264,069
Crawler .. ..	19,386	19,823	20,462		
Shearing machines (number of stands)	165,537	167,767	170,847	172,697	177,577
Milking machines (number of units)	213,716	216,287	221,260	223,815	228,228
Hammer mills .. ..	(b)	10,591	(b)	(b)	17,508

(a) Incomplete. Excludes some types of disc cultivator ploughs in Queensland.  
 available. Details are collected at triennial intervals only.

(b) Not

2. **Fertilizers.**—(i) *General.* In the early days of settlement in Australia, the principles of scientific cultivation were little understood. It was common for the land to be cropped continuously until the natural fertility was almost exhausted. More scientific methods have been adopted in recent decades, much of the improvement in this regard being due to the assistance and guidance offered to farmers by various State and Commonwealth departments and authorities.

Fertilizer is generally applied to pastures at the time of sowing, and periodical (usually annual) top-dressings are carried out afterwards to keep the pastures in good condition. The introduction of the modern seed-drill, acting also as a fertilizer-distributor, has greatly facilitated the use of artificial manures, and much land formerly regarded as useless for cultivation has now been brought into production. With the rapid increase in the area of sown pastures, particularly since the 1939–45 War, large quantities of artificial fertilizers

have been used. In addition, increasing areas of native pastures have been top-dressed. The utilization of aircraft, in particular, has enabled the fertilizing of some areas which would otherwise be inaccessible. In 1961-62, pastures (sown and native) accounted for nearly 60 per cent. of both the total area fertilized and the total quantity of fertilizer used.

(ii) *Local Production.* The Australian output of prepared fertilizers is derived chiefly from imported rock phosphate. Complete information regarding local production of fertilizers is not available. The number of firms engaged in the manufacture of chemical fertilizers in Australia for the year 1961-62 was 47, made up as follows:—New South Wales, 12; Victoria, 6; Queensland, 4; South Australia, 10; Western Australia, 7; and Tasmania, 8. The production of superphosphate in Australia during 1961-62 amounted to 2,591,000 tons.

(iii) *Quantities Used Locally.* Information regarding the area treated with artificial fertilizers and the quantity of artificial fertilizers (superphosphate, bonedust, nitrates, etc.) used in each State during the 1961-62 season is given in the following table.

AREA FERTILIZED AND QUANTITY OF ARTIFICIAL FERTILIZERS USED,  
1961-62

State or Territory	Crops			Pastures			Total		
	Area fertilized	Super-phosphate used	Other artificial fertilizers used	Area fertilized	Super-phosphate used	Other artificial fertilizers used	Area fertilized	Super-phosphate used	Other artificial fertilizers used
	'000 acres	tons	tons	'000 acres	tons	tons	'000 acres	tons	tons
New South Wales ..	3,955	129,650	33,655	6,594	342,948	5,948	10,549	472,598	39,603
Victoria ..	4,194	171,897	38,870	9,661	537,323	29,339	13,855	709,220	68,209
Queensland ..	576	19,361	103,880	30	1,984	1,076	606	21,345	104,956
South Australia ..	4,063	194,726	11,321	3,583	196,637	1,549	7,646	391,363	12,870
Western Australia ..	6,966	329,508	18,688	6,471	298,710	2,417	13,437	628,218	21,105
Tasmania ..	176	17,307	7,119	1,154	85,924	2,435	1,330	103,231	9,554
Northern Territory	1	57	91	1	33	35	2	90	126
Australian Capital Territory ..	4	247	33	78	4,193	19	82	4,440	52
<b>Total ..</b>	<b>19,935</b>	<b>862,753</b>	<b>213,657</b>	<b>27,572</b>	<b>1,467,752</b>	<b>42,818</b>	<b>47,507</b>	<b>2,330,505</b>	<b>256,475</b>

Particulars of the quantity of artificial fertilizers used in each State and Territory during each of the seasons 1957-58 to 1961-62, are shown in the next table. These details include the quantity used for the top-dressing of pasture lands.

QUANTITY OF ARTIFICIAL FERTILIZERS USED

(Tons)

Season	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Total
1957-58 ..	337,865	739,322	114,681	418,539	539,192	99,042	156	3,189	2,251,986
1958-59 ..	344,490	730,868	111,741	410,896	560,091	102,280	144	2,724	2,263,234
1959-60 ..	400,701	740,035	101,642	391,628	581,230	105,966	205	2,533	2,323,940
1960-61 ..	497,492	745,522	108,220	399,091	621,435	107,027	209	3,798	2,482,794
1961-62 ..	512,201	777,429	126,301	404,233	649,323	112,785	216	4,492	2,586,980

(iv) *Imports and Exports.* The chief sources of Australia's supplies of rock phosphate are Nauru, Christmas Island (Indian Ocean) and the Gilbert and Ellice Islands. Sodium nitrate is obtained chiefly from Chile.

The imports of artificial fertilizers during the five years ended 1961-62 are shown in the following table.

### ARTIFICIAL FERTILIZERS: IMPORTS INTO AUSTRALIA

Fertilizer	1957-58	1958-59	1959-60	1960-61	1961-62
QUANTITY (Tons)					
Ammonium sulphate ..	20,945	19,979	11	110	18,636
Potash salts ..	53,570	43,912	36,204	52,212	74,789
Rock phosphate ..	1,273,766	1,353,739	1,322,173	1,647,928	1,950,834
Sodium nitrate ..	14,430	7,505	6,837	5,670	7,709
Other ..	4,619	16,951	17,282	26,361	37,888
VALUE (£A.'000 f.o.b.)					
Ammonium sulphate ..	522	497	(a)	3	381
Potash salts ..	882	710	499	756	1,277
Rock phosphate ..	3,325	3,750	3,654	4,315	4,975
Sodium nitrate ..	354	152	139	134	155
Other ..	125	496	519	745	1,048
<b>Total ..</b>	<b>5,208</b>	<b>5,605</b>	<b>4,811</b>	<b>5,953</b>	<b>7,836</b>

(a) Less than £500.

Exports of fertilizers (practically all of which were manufactured locally) amounted to 1,955 tons valued at £56,054 in 1961-62 compared with 15,442 tons valued at £294,858 in 1960-61.

3. *Aerial Agriculture.*—During recent years, an increasing use has been made of aircraft for top-dressing and seeding, for spraying and dusting of crops and pastures, and for pest and vermin extermination. For 1956-57 (the first year for which data are available), the total area treated was about 20 per cent. of the area treated in 1961-62. The following table shows details of area treated and materials used for each State for the year ended 31st March, 1962.

## AERIAL AGRICULTURE: OPERATIONS DURING 1961-62

Particulars	Unit	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Total(a)
<b>Top-dressing and seeding—</b>								
Area treated with—								
Superphosphate alone ..	Acre	3,997,857	600,994	1,060	150,847	306,921	74,230	5,131,909
Seed alone ..	..	167,180	925	107,419	8,645	1,029	100	285,298
Superphosphate and seed together ..	..	850	74,300	..	1,230	41,792	..	118,172
Gypsum ..	..	263,809	..	..	..	1,120	..	264,929
Other ..	..	890	300	2,237	3,010	19,461	..	25,898
<b>Total (a) ..</b>	<b>..</b>	<b>4,330,707</b>	<b>676,219</b>	<b>110,716</b>	<b>163,732</b>	<b>366,103</b>	<b>74,330</b>	<b>5,721,807</b>
<b>Materials used—</b>								
Superphosphate ..	Ton	201,659	43,860	53	8,226	19,221	4,734	277,753
Seed on—								
Pasture ..	lb.	303,920	5,135	187,106	119,910	36,665	300	653,036
Other ..	..	20,000	..	..	..	247,840	..	267,840
<b>Spraying and dusting—</b>								
Area treated—								
Pasture ..	Acre	39,238	37,012	4,173	8,445	6,982	600	96,450
Crops ..	..	306,574	192,151	106,302	106,594	537,772	9,070	1,258,463
Other ..	..	5,963	1,935	10,029	770	500	..	19,197
<b>Total (a) ..</b>	<b>..</b>	<b>31,775</b>	<b>231,098</b>	<b>120,504</b>	<b>115,809</b>	<b>545,254</b>	<b>9,670</b>	<b>1,374,110</b>
<b>Total Area Treated (a) ..</b>	<b>..</b>	<b>4,687,232</b>	<b>972,269</b>	<b>231,220</b>	<b>279,541</b>	<b>908,508</b>	<b>84,000</b>	<b>7,162,770</b>
		(b)	(c)					(d)

(a) Areas treated with more than one type of material in one operation are counted once only.  
 (b) Includes 4,750 acres baited for rabbit destruction. (c) Includes 64,952 acres baited for rabbit destruction.  
 (d) Includes 69,702 acres baited for rabbit destruction. See footnotes (b) and (c).

NOTE.—The information contained in this table was collected by the Department of Civil Aviation.

4. **Pasture Improvement.**—(i) *Indigenous Species.* The earliest Australian pastoralists encountered a diversity of indigenous vegetation which had developed according to the varying conditions of soil and climate. The value of these plants as fodder, together with the local water supply, determined the capacity of each region as a grazing district.

The incursion of herds and flocks following the opening-up of new grazing districts resulted in many changes in the composition of native pastures. Species which were especially attractive to domestic stock were grazed more heavily, and in consequence suffered more than those which were hardier and less palatable. Where forests and bush were cleared, species requiring a shady aspect were frequently replaced by others which were normally found in exposed and drier areas. However, such species were not always well suited to the higher rainfall of the newly cleared regions, and new species had to be introduced from other countries to replace them. This introduction marked the beginning of pasture improvement.

The indigenous vegetation which is suitable for grazing may be classified into three groups according to growth habit—perennial grasses, annual grasses and perennial shrubs and trees.

The perennial grasses generally have the capacity to resist dry periods. The upper portions of these plants die off, and the crowns, which are usually at soil level, remain dormant. In northern Australia, where the rain falls mainly in the summer months, these plants hibernate during the colder winter months. Of the many species occurring, the best known are Mitchell grass (*Asprella* spp.) and Flinders grass (*Iseilema* spp.). Spinifex (*Triodia* spp.) is a widespread desert type. In areas of southern States where summers are hot and dry, common aestivating species are wallaby grass (*Danthonia* spp.), spear or corkscrew grass (*Stipa* spp.), and panic or millet grass (*Panicum* spp.). In wetter areas, tussock grass (*Poa australis*) flourishes.

Members of the annual group generally have a short life cycle which coincides with the rainy season, and are both numerous and varied in Australia. In many districts, they are a valuable addition to the more permanent perennials.

The third group consists of shrubs and small trees, many of which provide satisfactory grazing for stock. Prominent species include acacias such as mulga and myall (*A. pendula*), kurrajongs (*Brachychiton spp.*), wilga (*Geyera parviflora*) and numerous species of salt bush (*Atriplex*, *Bassia* and *Kochia spp.*).

(ii) *Plant Introduction.* Exotic pasture plants introduced into Australia were characteristic of pastures in the United Kingdom and Europe. These included the rye grasses (*Lolium spp.*), cocksfoot (*Dactylis glomerata*), clovers—white (*Trifolium repens*), red (*T. pratense*), subterranean (*T. subterraneum*), and strawberry (*T. fragiferum*)—and lucerne (*Medicago sativa*). From America, paspalum (*Paspalum dilatatum*), and from Africa, rhodes (*Chloris spp.*), veldt (*Erharta calycina*), buffel (*Cenchrus ciliaris*), birdwood (*Cenchrus setigera*) and kikuyu (*Pennisetum clandestinum*), grasses were introduced. A large number of other species arrived as impurities in seed or in stock fodder which occasionally entered Australia by ship. Two of these introduced species developed very effectively in their new environment, the medics and subterranean clover. The latter is recorded as being established in South Australia before 1900.

(iii) *Pasture Research.* Australian research into improved pasture commenced some time prior to 1926, when Professor (later Sir George) Stapleton visited Australia. His work and visit gave a fresh impetus to improved pasture research which continued on into the 1930's. All State Departments of Agriculture, the Commonwealth Scientific and Industrial Research Organization, and some universities have staffs permanently engaged on this research. Progress has resulted from following three main lines of research.

The first is based upon the belief that a pasture, though usually a complex of various species, behaves like a crop in that it requires a fertile soil as well as suitable climatic conditions for active growth. Under grazing, considerable quantities of the various chemical elements are removed, and, unless the soil is well supplied with these basic elements and they are readily available to the plants, deficiencies are likely to appear. If this limited supply is depleted, less favourable species which require smaller quantities of these elements may appear, and in time assume dominance. If these species are of lower grazing value, this leads to pasture deterioration. The simplest case is of phosphatic deficiency which is widespread in many Australian soils. The response of pastures to the application of superphosphate was first demonstrated soon after the 1914–18 War. Since then, the practice has become an integral part of improved pasture maintenance programmes. At present, many millions of acres of pastures are top-dressed with superphosphate each year. On the other hand, Australian research into trace element deficiencies in soils and the methods developed for rectifying these has resulted in improved pastures being established on millions of acres of virgin land previously considered infertile. In this way, research into fertilizers and their application has greatly assisted research into improved pastures and their management.

The second line of research is based upon the fact that most species of pasture plants comprise a variety of forms, each of which has its own peculiarities of growth and development. These characteristics are often extremely significant in determining the success or failure of the species under certain soil and climatic conditions. For this reason, State Departments of Agriculture have introduced seed certification schemes aimed at guaranteeing that farmers obtain pure seed of a variety suitable for their district. A major problem still unsolved, however, involves the development of varieties which will provide a high yield of top quality feed in the summer rainfall areas of northern Australia. Varieties are also being sought which will thrive in the southern areas of the continent where limitations are imposed on plant growth by highly variable rainfall conditions.

Finally, research has been directed into the effect of grazing animals upon standing pastures, for if a pasture is to be maintained over the years it is necessary that the animals grazing on it be managed with due regard to the characteristics of the plant in the pasture.

The general level of pasture quality has improved steadily as these three lines of research have been developed, and the results have been applied at the farm level.

5. *Soil Conservation.*—(i) *Land Use and Soil Erosion.* The threat of soil erosion is not new. Many of the civilizations of the ancient world continually struggled against its advance into their farmlands. In recent times, the virtually uncontrolled exploitation of large areas of the newly settled continents, America and Australia, has resulted in a serious loss of natural soil resources over wide areas. Soil erosion on such a scale is usually caused by poorly conceived and badly implemented land use. The clearing of hills and slopes, bare fallowing of marginal lands, and excessive grazing by domestic and wild animals have resulted in widespread erosion in settled areas.

(ii) *Agents of Erosion.* The erosion of soil may take place through the agency of water or wind. The major types of water erosion are:—sheet erosion, where the surface soil is removed over large areas; gully erosion, where the soil and sub-soil is gouged out in localized areas to produce gullies; tunnel erosion, where the sub-soil is washed downhill beneath the surface with a resultant collapse of the unsupported surface soil; and stream erosion, which results in an undermining and subsidence of the banks of flooding rivers and creeks.

Each of these types of erosion may have apparently harmless beginnings, but the speed at which they may develop, if uncontrolled, is rapid and dramatic.

Wind erosion is the dominant type of erosion in dry areas where plant growth is sparse and soil particles are loose and free to move. Wind erosion has a similar effect to sheet erosion caused by water, in that it leaves the surface bare and scalded, retarding plant growth and rendering the land agriculturally useless. Coarse particles may be eddied by the wind into local dunes, but the smaller, lighter particles blow for many miles as dust. Dunes shift continually unless colonized by plant life, and may cover fences, roads, paddocks and even buildings.

The presence of soluble salts in the surface layers of the soil has been a contributing cause to both wind and water erosion over large areas of South Australia and Western Australia. The destruction of plants by comparatively small amounts of residual salt in the top soil and breakdown in the soil structure considerably increase susceptibility to agents of erosion.

(iii) *Prevention and Control.* Effective techniques for checking, as opposed to avoiding, both water and wind erosion have been devised. Of these, the formation of contour banks, contour ploughing, the growing of wind breaks and the stabilizing of loose soil by crops are the simplest. Contour ploughing of hillsides frequently prevents water from flowing downhill. In other cases, where the slope is greater, contour banks will successfully retain and divert water flow into absorption areas. On gently sloping grazing land, run-off can often be successfully controlled by well-spaced furrows, ploughed on the contour. Trees planted in the form of shelter belts and windbreaks can provide excellent counters to wind erosion in exposed areas. Superior to all these techniques, however, is the stabilization of surface soil by the provision of permanent, adequate vegetative cover. Hence a considerable volume of research has been devoted to selecting plants suitable for vegetative regeneration in areas which experience long dry periods.

(iv) *Soil Conservation Service.* The seriousness of the threat of soil erosion to Australia was not generally appreciated until the early 1930's. But in 1936, all States were requested by the Commonwealth government to form soil conservation committees to promote and co-ordinate efforts to combat this wastage of soil resources. From this time onward, interest in soil conservation has continued to expand.

With the introduction of the *Soil Conservation Act* of 1938 and the subsequent establishment of the Soil Conservation Service, New South Wales was the first Australian State to establish an organization to be concerned solely with soil conservation. Victoria followed next, in 1940, when the *Soil Conservation Act* was passed to authorize the establishment of the Soil Conservation Board (now Soil Conservation Authority). Although the other Commonwealth States and Territories do not possess separate bodies devoted to soil conservation, they do have specialized conservation sections within their Departments of Agriculture. In all cases, a common aim of conserving the soil provides these soil conservation groups with a wide charter. This involves the protection of the catchment areas, advice and assistance to land-holders, and the close co-operation of all Commonwealth, State and local government authorities concerned with matters of conservation. In some States, conservation research stations provide facilities where research into the prevention and control of erosion may be conducted.

In 1946, a Commonwealth Standing Committee on Soil Conservation was established on the recommendation of the Australian Agricultural Council. This Committee consists of heads of the State soil conservation organizations and representatives from the Commonwealth Departments of Primary Industry and Interior and the Commonwealth Scientific and Industrial Research Organization. The main functions of the Committee are to co-ordinate the work of State soil conservation services, to obtain the co-operation and assistance of trained personnel in related fields, and to undertake special research projects in consultation or collaboration with the States.

## AGRICULTURAL PRODUCTION

NOTE.—In general, statistics in this chapter relating to agricultural production are derived from "census" returns supplied by approximately 250,000 farmers who utilize one acre or more of land for agricultural or pastoral purposes. The latest figures available are those for the year 1961–62. The returns are collected on a substantially uniform basis in all States at 31st March each year, and relate to areas sown and crops produced in the previous twelve months. Where harvests are not completed by March (e.g. potatoes), provision is made in some States for a special collection after the harvest is completed and in others for the inclusion of the total estimated yield expected from the complete harvest. In cases where additional data are available from marketing authorities or other sources, these are used in conjunction with the "census" returns. The statistics published in this chapter are therefore shown in "agricultural" years. For most purposes, there will be little error involved in considering them as applying to years ending 30th June.

Details of the weights and measures used in recording production of agricultural commodities appear in the introduction to the bulletin *Primary Industries, Part I.—Rural Industries*.

### § 1. Progress, Assistance and Control

1. **Early Development.**—The coastal districts of southern Australia are characterized to a large degree by leached soils of low fertility, with limited areas suitable for intensive crop cultivation. This, combined with an unfamiliar climate and problems associated with the clearance of scrub-land, severely checked early attempts to establish crops.

A brief reference to these attempts at cultivation by the first settlers in New South Wales and to the discovery of suitable agricultural land on the Parramatta and Hawkesbury Rivers prior to the year 1813 and west of the Blue Mountains thereafter is contained in early issues of the Official Year Book. (See No. 22, p. 670.)

In an *Account of Live Stock and Ground under Crop in New South Wales, 19th August, 1797*, Governor Hunter gives the acreage of crops as follows:—wheat, 3,361 acres; maize, 1,527 acres; barley, 26 acres; potatoes, 11 acres; and vines, 8 acres.

The following details of crops were collected in 1808:—wheat, 6,874 acres; maize, 3,389 acres; barley, 544 acres; oats, 92 acres; peas and beans, 100 acres; potatoes, 301 acres; turnips, 13 acres; orchards, 546 acres; and flax and hemp, 37 acres.

By the year 1850, the area of crops had increased to 491,000 acres, of which 198,000 acres were cultivated in what is now the State of New South Wales, and 169,000 acres in Tasmania. At the end of 1850, the area under cultivation in Victoria, which was then the Port Phillip District of New South Wales, was 52,190 acres. The bulk of the arable land in this part of the colony was devoted to the extensive grazing of sheep.

The gold discoveries of 1851 (at Bathurst in New South Wales and later at Ballarat and Bendigo in Victoria) had at first a very disturbing effect on agricultural progress. The area of crops declined from 491,000 acres in 1850 to 458,000 acres in 1854, as landowners and rural labourers joined in the various gold rushes. The demand for agricultural products occasioned by the large influx of population was, however, soon reflected in the increased area cultivated, for at the end of 1858 the land under crop in Australia exceeded a million acres. There was still a shortage of rural labour, and the increased acreage was due largely to the increasing mechanization of crop operations.

2. **Progress of Cultivation.**—The following table shows the area of crops in each of the States and Territories of Australia at ten-yearly intervals since 1860–61 and during each of the ten seasons 1952–53 to 1961–62. On page 993 there is a graph showing the area of crops in Australia from 1900–01 onward.

AREA OF CROPS  
(’000 acres)

Season	N.S.W.	Vic.	Q’land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1860–61	246	387	4	359	25	153	..	..	1,174
1870–71	385	693	52	802	55	157	..	..	2,144
1880–81	606	1,549	114	2,087	64	141	..	..	4,561
1890–91	853	2,032	225	2,093	70	157	..	..	5,430
1900–01	2,447	3,114	458	2,370	201	224	..	..	8,814
1910–11	3,386	3,952	667	2,747	855	287	..	..	11,894
1920–21	4,465	4,490	780	3,231	1,805	297	..	2	15,070
1930–31	6,811	6,716	1,144	5,426	4,792	268	2	5	25,164
1940–41	6,375	4,467	1,734	4,255	4,027	254	..	6	21,118
1950–51	4,761	4,537	2,077	3,812	4,650	290	(a)	6	20,133
1952–53	4,837	4,500	2,423	3,780	4,817	303	(a)	6	20,666
1953–54	5,425	4,737	2,361	4,034	4,633	330	(a)	7	21,527
1954–55	5,394	4,704	2,593	4,229	5,112	301	1	5	22,339
1955–56	5,660	4,812	2,604	4,220	5,342	327	1	7	22,973
1956–57	3,789	3,904	2,469	4,273	5,233	288	1	5	19,962
1957–58	5,000	4,431	2,600	4,233	5,615	292	1	5	22,177
1958–59	6,820	5,040	2,852	4,436	6,135	339	1	7	25,631
1959–60	7,137	4,816	2,926	4,400	6,495	322	2	7	26,105
1960–61	8,044	5,838	3,057	5,399	6,871	357	2	8	29,576
1961–62	8,288	5,626	3,216	5,024	7,112	364	2	7	29,639

(a) Not available.

The progress of agriculture was practically uninterrupted from 1860–61 to 1915–16, when, as the result of a special effort to increase wheat production during the 1914–18 War, 18.5 million acres were cultivated in Australia. There was a temporary setback in later war years, but after the end of the war the area continued to expand, and increased steadily to the record area of 25.2 million acres in 1930–31. In the following years, the slump in wheat prices seriously depressed incomes in the agricultural industry, and the area of crops decreased to just under 20 million acres in 1935–36.

By 1938–39, the industry was recovering from the depression, and the total area under cultivation reached the high level of 23.5 million acres. Thereafter, as a result of war-time man-power shortages and shipping difficulties, the area declined to less than 16 million acres in 1943–44. After that year, production gradually increased again until, in 1947–48, 22.5 million acres were sown to crops. This upward trend was reversed after 1948–49, largely because many primary producers transferred from wheat to wool production as a result of the high prices of wool. Since 1951–52, however, when the area sown was 20.0 million acres, the area under crops has increased steadily, except for 1956–57, when excessively wet conditions caused reductions in the area sown to wheat. Since that year, the area of all crops has shown an upward trend in each year, reaching a record level of 29.6 million acres in 1961–62. As the area under wheat in Australia constitutes a large proportion of the total area cropped (46 per cent. during the five years ended 1961–62), fluctuations in the former have in the past been largely responsible for year to year variation in total crop area.

3. **Control and Assistance by Governmental Authorities.**—(i) *General.* The influence of governmental and semi-governmental authorities on Australian rural industry is most apparent in the fields of guaranteed prices, subsidies and controlled marketing. Many of these aspects of intervention at the national level take place indirectly through the Australian Agricultural Council.

(ii) *Australian Agricultural Council.* Arising out of a conference of Commonwealth and State Ministers on agricultural and marketing matters, held at Canberra in December, 1934, a permanent organization known as the Australian Agricultural Council was formed. The Council consists of the Commonwealth Ministers for Primary Industry and Territories



and the State Ministers of Agriculture, with power to co-opt the services of other Commonwealth and State Ministers as required. The principal functions of the Council are:—the promotion of the welfare and development of agricultural industries generally; the exchange of information on agricultural production and marketing; the improvement of the quality of agricultural products and the maintenance of high grade standards; to ensure, as far as possible, balance between production and available markets; and organized marketing.

In addition, a permanent Standing Committee on Agriculture was formed to advise the Council, to secure co-operation and co-ordination in agricultural research, to advise State and Commonwealth Governments on the initiation and development of agricultural research, and to secure co-operation between all Governments in respect of quarantine measures against pests and diseases of plants and animals.

(iii) *Bounties paid to Producers.* Direct financial assistance to primary producers by the Commonwealth Government takes the form of bounties, subsidies and other financial assistance. Brief details of some of the more important payments are given below.

(a) *Cotton Bounty.* The *Cotton Bounty Act* provides for payment of a bounty on seed cotton of a grade higher than "strict good ordinary" delivered to a ginnery and processed at the ginnery into raw cotton for sale for use in Australia. The present rate of bounty is designed to give growers an average return of 14d. per lb. for seed cotton which is one grade higher than "strict good quality". The total payment in 1960–61 was £373,487 and in 1961–62 it was £315,105.

(b) *Flax Fibre Bounty.* The period covered by the bounty terminated on 31st October, 1960. (See Official Year Book No. 47, p. 939, and previous issues, for details of, and payments under, the bounty.)

(iv) *Other Financial Assistance.* Other forms of assistance to producers include payments for cattle tick control, the Commonwealth Dairy Industry Extension Grant, Commonwealth Extension Service Grant, flood, drought and bush fire relief, fisheries research and farm mechanization research.

Over recent years, legislative research schemes, financed by matching contributions from the Commonwealth and industry and/or States, have been initiated in regard to wheat, wool, tobacco, dairy produce, beef cattle and wine. Non-legislative schemes, on a similar financial basis, have been operative in relation to brown rot, Australian plague locusts, tractor testing, peanut drying, sugar-cane harvesting mechanization, barley research, banana research and fruit fly research.

For further information on these matters, see Chapter XXI. Public Finance, pages 935–6.

(v) *Agricultural Training and Research.* Agricultural colleges have been established in all States except Tasmania. The primary function of these colleges is the training of students in the various phases of agriculture and livestock husbandry. Students are required to undertake a considerable amount of practical work in addition to lectures and theory. A secondary function of the colleges is agricultural research and experimentation. To a lesser degree, they carry out extension work in the form of public field days. Upon graduation, students receive diplomas in agriculture, dairying, etc., according to the course undertaken.

Experimental farms have been set up by State Departments of Agriculture in all States. They are primarily concerned with agricultural research and experimentation, each farm concentrating on problems specific to the district in which it is located. The results of the work undertaken are passed on to farmers at field days which are held at regular intervals, through publication in various agricultural or scientific journals, and through the agricultural extension services of the State Departments of Agriculture.

The Commonwealth Scientific and Industrial Research Organization has field stations in many parts of Australia, and sometimes undertakes research jointly with the appropriate State authorities. It also has regional laboratories in several States, conducting research into agronomic and livestock problems as they occur in each particular region (see also Chapter XVIII. Education, Cultural Activities and Research). The State Departments of Agriculture study problems of particular significance within their own boundaries. In addition, the universities carry out valuable work in their laboratories and on their experimental farms.

## § 2. Distribution, Production and Value of Crops

1. *Distribution.*—(i) *General.* The wide range of climatic and soil conditions over the agricultural regions of Australia has resulted in a diversity of crops being grown throughout the Commonwealth. Generally, cereal crops (excluding rice and sorghum) are grown in all States over wide areas, while industrial crops are confined to specific locations in a few States.

(ii) *Area of Crops in States and Territories.* The following table shows the areas in the several States and Territories of each of the crops for the season 1961–62.

## AREA OF CROPS, 1961-62

(Acres)

Crop	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
<b>Cereals for grain—</b>									
Barley—									
2-row .. ..	125,984	212,400	157,326	1,222,487	59,167	18,728	..	..	2,383,336
6-row .. ..	74,771	13,092	19,559	48,417	431,405		..	..	210,540
Maize .. ..	51,434	3,309	155,780	..	17	..	..	866	3,096,649
Oats .. ..	713,331	774,404	26,782	323,662	1,230,651	26,953	..	..	..
Panicum, millet and setaria .. ..	3,257	1,972	77,751	(a)	12	..	..	..	(b) 82,992
Rice .. ..	50,185	..	..	..	(a)	..	(a)	..	(b) 50,185
Rye .. ..	2,276	17,849	221	32,263	9,572	524	..	..	62,705
Sorghum .. ..	70,134	..	292,397	..	135	..	(a)	..	(b) 362,666
Wheat .. ..	4,498,244	2,848,781	749,682	2,229,211	4,379,751	15,568	..	1,414	14,722,651
Hay .. ..	594,023	922,032	95,358	208,641	293,549	157,238	422	2,442	2,273,705
Green fodder ..	1,829,867	539,020	864,461	787,388	622,067	57,000	588	1,197	4,701,588
Other stock fodder ..	7,058	41,465	7,658	29,923	4,211	27,971	2	..	118,282
<b>Grass seed—</b>									
Lucerne .. ..	16,984	(a)	473	19,398	10	..	(c)	..	(b) 36,865
Clover .. ..	10,654	4,045	..	2,788	21,658	963	..	..	40,108
Other .. ..	11,997	16,310	16,943	5,166	6,871	(d) 2,855	20	482	(b) 60,644
<b>Industrial crops—</b>									
Broom millet ..	2,164	506	423	..	..	..	..	..	3,093
Canary seed ..	539	..	50,919	(a)	..	..	..	..	(b) 51,458
Cotton .. ..	1,956	(a)	26,888	..	(a)	..	..	..	(b) 28,844
Flax—									
For fibre ..	..	323	..	..	91	..	..	..	414
For linseed ..	7,266	17,711	34,390	1,513	1,253	..	..	..	62,133
Hops .. ..	..	513	..	..	(a)	(e) 1,474	..	..	(b) 1,987
Peanuts .. ..	573	..	33,131	..	(a)	..	307	..	(b) 34,011
Sugar cane—									
For crushing ..	14,655	..	372,223	..	..	..	..	..	386,878
Stand-over and cut for plants ..	11,781	..	100,170	..	..	..	..	..	111,951
Sunflower seed ..	(a)	189	4,288	..	..	..	..	..	(b) 4,477
Tobacco .. ..	3,078	9,286	14,069	..	194	..	..	..	26,627
Other .. ..	(a)	635	281	115	..	378	..	..	(b) 1,409
<b>Vegetables for human consumption—</b>									
Onions .. ..	490	4,456	3,173	753	479	60	1	(f)	(b) 9,412
Potatoes .. ..	20,209	36,469	14,466	5,316	6,824	11,129	(f)	30	(b) 94,443
Other .. ..	49,612	38,422	36,056	10,672	8,485	19,822	124	102	163,295
<b>Vineyards—</b>									
Bearing .. ..	15,809	42,540	2,876	53,004	7,880	..	(a)	(a)	(b) 122,109
Not bearing ..	1,798	2,565	327	4,832	1,137	..	..	..	10,659
<b>Orchards and other fruit gardens—</b>									
Bearing .. ..	73,412	50,658	29,235	27,777	18,308	19,569	75	49	219,083
Not bearing ..	20,834	22,054	12,637	10,771	6,179	2,290	61	16	74,842
<b>Nurseries and cut flowers .. ..</b>	725	2,875	418	235	304	98	..	26	4,681
<b>All other crops ..</b>	2,560	1,956	15,558	98	2,164	1,609	113	58	24,116
<b>Total Area ..</b>	<b>8,287,660</b>	<b>5,625,837</b>	<b>3,215,919</b>	<b>5,024,430</b>	<b>7,112,374</b>	<b>364,229</b>	<b>1,713</b>	<b>6,682</b>	<b>29,638,844</b>

(a) Not available for publication. Included in All other crops, except in respect of rice in the Northern Territory, which is excluded from Total Area. (b) Incomplete. See footnotes to individual States. (c) Not available for publication. Included in Other grass seed. (d) Excludes area simultaneously sown to oats. (e) Includes 63 acres not bearing. (f) Not available for publication. Included with Other vegetables.

(iii) *Relative Areas of Crops in States and Territories.* The proportion of each of the major crops cultivated in the various States and Territories to the total area of crops for the season 1961-62 is shown in the next table.

## RELATIVE AREAS OF CROPS, 1961-62

(Per cent.)

Crop	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Wheat (grain) ..	54.3	50.6	23.3	44.4	61.6	4.3	..	21.2	49.7
Green fodder ..	22.1	9.6	26.9	15.7	8.7	15.6	34.3	17.9	15.9
Oats (grain) ..	8.6	13.8	0.8	6.4	17.3	7.4	..	13.0	10.4
Barley (grain) ..	2.4	4.0	5.5	25.3	6.9	5.1	..	..	8.0
Hay ..	7.2	16.4	3.0	4.2	4.1	43.2	24.6	36.5	7.7
Sugar cane, crushed ..	0.2	..	11.6	..	..	..	..	..	1.3
Sorghum ..	0.8	..	9.1	..	(a)	..	(b)	..	c 1.2
Total, orchards and fruit gardens ..	1.1	0.9	0.9	0.6	0.3	5.4	4.4	0.7	0.7
Maize (grain) ..	0.6	0.1	4.8	(b)	(a)	..	..	..	c 0.7
Total, vineyards ..	0.2	0.8	0.1	1.2	0.1	..	(b)	(b)	c 0.4
Potatoes ..	0.2	0.6	0.4	0.1	0.1	3.1	(b)	0.4	c 0.3
All other ..	2.3	3.2	13.6	2.1	0.9	15.9	36.7	10.3	3.7
<b>Total ..</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) Less than 0.05 per cent. (b) Not available for publication. Included in All other.  
(c) Incomplete. See footnotes to individual States.

(iv) *Area of Crops in Australia.* The area of crops during each of the five seasons ended 1961-62 is shown hereunder.

## AREA OF CROPS: AUSTRALIA

('000 acres)

Crop	1957-58	1958-59	1959-60	1960-61	1961-62
<b>Cereals for grain—</b>					
Barley, 2- and 6- row ..	2,121	2,381	2,379	2,830	2,383
Maize ..	184	180	185	185	211
Oats ..	2,959	3,974	3,030	3,637	3,097
Rice ..	47	47	49	46	50
Wheat ..	8,848	10,399	12,172	13,439	14,723
Hay ..	2,237	3,018	2,105	2,973	2,274
Green fodder ..	3,746	3,578	4,094	4,408	4,702
<b>Industrial crops—</b>					
Cotton ..	10	10	20	37	29
Hops ..	2	2	2	2	2
Sugar cane ..	506	511	487	475	499
Tobacco ..	13	15	20	29	27
<b>Vegetables for human consumption—</b>					
Onions ..	11	9	9	9	9
Potatoes ..	118	105	108	92	94
Other vegetables ..	164	153	147	155	163
Vineyards ..	131	131	130	131	133
Orchards ..	276	287	289	289	294
All other crops ..	804	831	879	839	949
<b>Total ..</b>	<b>22,177</b>	<b>25,631</b>	<b>26,105</b>	<b>29,576</b>	<b>29,639</b>

(v) *Size Classification of Principal Crops.* In Australia there is, in many cases, a close correlation between the type of crop and the size of holdings upon which it is usually grown. A special series of tabulations relating to rural holdings in Australia was compiled for 1959-60 and has been published in full detail in a series of bulletins, *Classification of Rural Holdings by Size and Type of Activity, 1959-60*. Tables in these bulletins show a classification by area of holding and area of crop for wheat, oats and barley by States and statistical divisions. These tables thus provide a guide to the regional distribution of the holdings growing the major crops, sown grasses and clovers. Classifications of holdings according to major crops grown, livestock carried and type of activity are also shown.

2. *Production.*—(i) *Production of Crops in States and Territories.* The following table shows production of crops in the various States and Territories for the season 1961-62.

## PRODUCTION OF CROPS, 1961-62

Crop	Unit of quantity	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<b>Cereals for grain—</b>										
Barley—										
2-row .. ..	'000 bus.	2,562	4,415	3,144	20,636	982	607	..	..	41,504
6-row .. ..	"	1,575	239	388	656	6,300		..	..	7,307
Maize .. ..	"	2,349	192	4,766	(a)	..	..	..	..	55,130
Oats .. ..	"	13,225	16,312	412	4,391	20,187	587	..	16	1,359
Panicum, millet and setaria	"	55	35	1,269	(b)	(a)	..	..	..	7,045
Rice .. ..	"	7,045	..	..	..	(b)	..	(b)	..	400
Rye .. ..	"	26	137	2	167	60	8	..	..	9,361
Sorghum .. ..	"	1,307	..	8,054	(a)	..	..	(b)	..	247,178
Wheat .. ..	"	78,350	56,879	12,018	33,854	65,700	345	..	32	..
<b>Hay .. ..</b>	'000 tons	923	1,585	212	286	396	286	(a)	5	3,693
<b>Grass seed—</b>										
Lucerne .. ..	cwt.	9,742	(b)	206	19,739	9	..	..	..	29,696
Clover .. ..	"	15,329	5,656	..	2,836	48,845	445	..	..	73,111
Other .. ..	"	7,335	19,827	33,170	5,082	14,635	4,709	45	200	85,003
<b>Industrial crops—</b>										
Broom millet—										
Fibre .. ..	cwt.	12,875	1,950	1,257	..	..	..	..	..	16,082
Grain .. ..	bus.	13,287	1,059	(d)	..	..	..	..	..	14,346
Canary seed ..	'000 bus.	5	..	333	(b)	..	..	..	..	338
Cotton, unginned	'000 lb.	582	(b)	10,366	..	(b)	..	..	..	10,948
Flax—										
Fibre .. ..	ton	..	514	..	..	183	..	..	..	697
Linseed .. ..	"	856	6,093	5,187	275	178	..	..	..	12,589
Hops (dry weight)	cwt.	..	7,606	..	(b)	..	25,330	..	..	32,936
Peanuts .. ..	"	6,003	..	292,267	(b)	..	..	1,343	..	299,613
Sugar cane for crushing	'000 tons	556	..	9,021	..	..	..	..	..	9,577
Sunflower seed ..	cwt.	(b)	1,814	21,944	..	..	..	..	..	23,758
Tobacco, dried leaf	'000 lb.	3,116	6,515	12,751	..	(e) 196	..	..	..	22,578
<b>Vegetables for human consumption—</b>										
Onions .. ..	ton	3,082	23,784	17,921	6,915	6,290	327	4	(b)	58,323
Potatoes .. ..	"	83,301	196,032	70,675	48,479	55,700	71,560	(a)	234	525,981
<b>Vineyards—</b>										
Grapes—										
For drying .. ..	"	53,996	271,053	..	46,956	8,028	..	..	..	380,033
" table .. ..	"	5,917	7,775	3,510	1,037	2,525	..	(b)	(b)	20,764
" wine .. ..	"	33,538	16,263	188	172,009	5,103	..	..	..	227,101

(a) Less than 500 bushels.  
States.

(b) Not available for publication.  
(d) Not available.

(c) Incomplete; see footnotes to individual

(e) Includes 110,000 lb. of unsold leaf.

(ii) *Production of Principal Crops in Australia.* The following table shows the production of the principal crops for the five years ended 1961-62.

#### PRODUCTION OF PRINCIPAL CROPS: AUSTRALIA

Crop	Unit of quantity	1957-58	1958-59	1959-60	1960-61	1961-62
Cereals for grain						
Barley, 2- and 6- row ..	'000 bus.	30,466	62,976	34,179	67,970	41,504
Maize .. .. .	"	5,639	6,717	6,725	6,245	7,307
Oats .. .. .	"	31,426	86,905	46,841	76,107	55,130
Rice .. .. .	"	5,658	6,619	6,732	6,001	7,045
Wheat .. .. .	"	97,566	215,121	198,501	273,716	247,178
Hay .. .. .	'000 tons	2,969	5,090	3,177	5,079	3,693
Industrial crops—						
Cotton, unginned ..	'000 lb.	3,390	4,004	9,463	15,544	10,948
Hops (dry weight) (a) ..	cwt.	32,710	36,499	31,790	33,099	32,936
Sugar cane for crushing ..	'000 tons	9,249	10,213	9,002	9,166	9,577
Tobacco (dried leaf) ..	'000 lb.	11,567	13,970	19,357	29,862	22,578
Vegetables for human consumption—						
Onions .. .. .	'000 tons	72	55	57	54	58
Potatoes .. .. .	"	575	575	579	451	526
Vineyards—						
Grapes .. .. .	"	550	537	445	527	628
Wine made (b) .. .. .	'000 gals.	33,854	32,538	28,396	33,793	41,781
Dried vine fruits .. .. .	'000 tons	91	87	70	82	96

(a) Excludes Western Australia. (b) Net factory and farm production of beverage and distillation wine. This excludes the liquid gallage of spirits added in wine fortifying.

(iii) *Yield per Acre of Principal Crops in Australia.* The following table shows the yield per acre of the principal crops for Australia during the five years ended 1961-62.

#### YIELD PER ACRE OF PRINCIPAL CROPS: AUSTRALIA

Crop	Unit of quantity	1957-58	1958-59	1959-60	1960-61	1961-62
Cereals for grain—						
Barley, 2- and 6- row ..	bushel	14.4	26.5	14.3	24.0	17.4
Maize .. .. .	"	30.6	37.4	36.4	33.8	34.7
Oats .. .. .	"	10.6	21.9	15.5	20.9	17.8
Rice .. .. .	"	121.0	140.7	137.5	130.1	140.4
Wheat .. .. .	"	11.0	20.7	16.3	20.4	16.8
Hay .. .. .	ton	1.33	1.69	1.51	1.71	1.62
Industrial crops—						
Cotton, unginned ..	lb.	327	382	468	420	380
Hops (dry weight) (a) ..	cwt.	17.73	19.52	16.71	17.78	17.12
Sugar cane for crushing (a)	ton	24.62	27.63	28.67	26.89	24.75
Tobacco (dried leaf) ..	lb.	876	922	970	1,022	848
Vegetables for human consumption—						
Onions .. .. .	ton	6.36	6.22	6.10	5.87	6.20
Potatoes .. .. .	"	4.88	5.49	5.34	4.91	5.57
Vineyards—						
Grapes (a) .. .. .	"	4.42	4.33	3.62	4.32	5.14

(a) Per acre of productive crops.

3. *Value of Agricultural Production.*—(i) *Gross Value of Agricultural Production in Australia.* The following table shows the gross value of principal crops and of total agricultural production in Australia for the five years ended 1961-62.

Further reference to the value of production of agriculture and other industries in Australia as well as a brief explanation of the terms used may be found in Chapter XXIX. Miscellaneous.

## GROSS VALUE(a) OF AGRICULTURAL PRODUCTION: AUSTRALIA

(£'000)

Crop	1957-58	1958-59	1959-60	1960-61	1961-62
Cereals for grain—					
Barley .. ..	17,555	33,304	16,623	31,072	21,933
Maize .. ..	4,995	4,629	4,029	5,264	5,285
Oats .. ..	15,951	30,964	18,396	25,535	20,001
Rice .. ..	4,045	4,731	4,450	4,125	3,832
Wheat .. ..	66,892	144,087	137,762	195,678	186,172
Hay .. ..	39,277	46,503	34,433	50,181	37,746
Green fodder .. ..	8,571	6,966	7,572	9,647	8,743
Industrial crops—					
Cotton, unginned .. ..	213	249	556	917	647
Hops .. ..	1,137	1,273	1,159	1,179	1,242
Sugar-cane .. ..	47,346	47,276	44,774	50,580	49,608
Tobacco (dried leaf) .. ..	6,202	7,920	11,215	13,051	12,122
Vegetables for human consumption—					
Onions .. ..	1,274	1,920	2,841	1,833	2,547
Potatoes .. ..	9,969	13,109	13,460	19,365	20,697
Other vegetables for human consumption .. ..	25,359	25,243	26,611	29,718	28,743
Grapes .. ..	18,337	18,496	14,698	17,868	19,815
Fruit and nuts .. ..	59,150	54,025	51,763	59,773	63,364
All other crops .. ..	14,573	19,197	20,012	19,895	21,675
Total .. ..	340,846	459,892	410,354	535,681	504,172

(a) Includes amounts paid as bounty, relief, etc.

(ii) *Gross, Farm and Net Values in States and Territories.* Values of agricultural production in the various States and Territories are shown for 1961-62 in the following table.

In computing the net value of production, no deduction has been made for the cost of maintenance of farm buildings and fences, nor for the depreciation of farm plant.

## GROSS, FARM AND NET VALUES OF AGRICULTURAL PRODUCTION, 1961-62

(£'000)

State	Gross production valued at principal markets	Marketing costs	Gross production valued at farm	Value of materials used in process of production	Net value of production (a)
New South Wales .. ..	127,352	24,431	102,921	(b) 9,063	93,858
Victoria .. ..	115,112	16,374	98,738	10,493	88,245
Queensland .. ..	105,275	12,517	92,758	17,682	75,076
South Australia .. ..	62,011	7,454	54,557	9,090	45,467
Western Australia .. ..	74,383	9,526	64,857	13,532	51,325
Tasmania .. ..	19,835	4,895	14,940	2,595	12,345
Northern Territory .. ..	75	(c)	75	(c)	75
Australian Capital Territory .. ..	129	12	117	5	112
Australia .. ..	504,172	75,209	428,963	62,460	366,503

(a) No deduction has been made for depreciation and maintenance. (b) No allowance has been made for costs of power, power kerosene, petrol and other oils. (c) Not available.

(iii) *Net Values of Agricultural Production, 1957-58 to 1961-62.* In the following table, the net value of agricultural production and the net value per head of population are shown by States for the years 1957-58 to 1961-62.

#### NET VALUE OF AGRICULTURAL PRODUCTION(a)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
NET VALUE (£'000)									
1957-58	44,754	64,971	62,898	32,318	27,338	12,050	52	149	244,530
1958-59	82,472	73,661	68,716	50,571	42,746	10,496	59	222	328,943
1959-60	78,518	68,912	65,357	24,246	44,044	10,645	79	150	291,951
1960-61	98,171	104,031	73,471	58,323	46,708	10,939	80	138	391,861
1961-62	93,858	88,245	75,076	45,467	51,325	12,345	75	112	366,503

#### NET VALUE PER HEAD OF POPULATION (£)

1957-58	12.2	24.2	44.2	36.5	39.4	36.3	2.4	3.8	25.1
1958-59	22.1	26.8	47.4	55.7	60.6	31.0	2.6	5.1	33.1
1959-60	20.7	24.4	44.2	26.0	61.4	30.9	3.2	3.0	28.7
1960-61	25.4	36.0	48.9	60.9	64.0	31.2	3.1	2.5	37.7
1961-62	23.8	29.8	49.1	46.4	68.8	34.6	2.8	1.8	34.6

(a) No deduction has been made for depreciation and maintenance.

4. **Indexes of Quantum and Price of Agricultural Production.** Indexes of quantum and price of agricultural production are shown in the following table. The quantum indexes relate to gross output of farm products valued at constant prices. The quantities of each farm product produced each year have been re-valued at the unit gross value for the period 1936-37 to 1938-39. The price indexes relate to average "prices" of farm products realized at the principal markets of Australia. Average quantities of each product marketed in the period 1946-47 to 1950-51 have been used as fixed weights. Further details on weights used, etc., are to be found in Chapter XXIX. Miscellaneous.

#### INDEXES OF QUANTUM(a) AND PRICE OF AGRICULTURAL PRODUCTION

(Base: Average 3 years ended June, 1939 = 100)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
<b>Quantum Produced—</b>					
Wheat .. .. .	59	131	121	166	150
Other crops .. .. .	141	187	152	184	171
<i>Total, All Crops</i> .. .. .	<i>109</i>	<i>165</i>	<i>140</i>	<i>177</i>	<i>163</i>
<i>Per head of population</i>	<i>77</i>	<i>114</i>	<i>95</i>	<i>117</i>	<i>106</i>
<b>Price—</b>					
Wheat .. .. .	339	337	350	355	380
Other crops .. .. .	333	310	313	344	323
<i>Total, All Crops</i> .. .. .	<i>336</i>	<i>322</i>	<i>329</i>	<i>349</i>	<i>348</i>

(a) Indexes of value at constant prices, i.e. quantities revalued at average unit values of the base years (1936-37 to 1938-39).

### § 3. Cereal Crops

1. *Wheat.*—(i) *General.* Wheat is grown on a large scale in all States except Tasmania, and is the most important crop in Australia in terms of area, production and exports. The present limits of the wheat belt have been established after considerable fluctuation over the last four decades.

In January, 1934, a Royal Commission was appointed to inquire into and report upon the economic condition of the growing, handling and marketing of wheat, and the manufacturing, distributing and selling of flour and bread. The Report of this Royal Commission provides an authoritative description of all aspects of the industry up to that time.

Two of the aspects of governmental and semi-governmental assistance and control which have contributed to the development of the industry are the organization of oversea marketing and of research.

(ii) *The Australian Wheat Board.* The Australian Wheat Board was constituted in September, 1939, under National Security (Wheat Acquisition) Regulations, to purchase, sell, or dispose of, wheat or wheat products, and to manage and control all matters connected with the handling, storage, protection, shipment, etc. of wheat acquired, and such other matters as were necessary to give effect to the regulations.

Details of the operations of the Wheat Stabilization Board in licensing wheat grown during the seasons 1941–42 to 1948–49 will be found in Official Year Book No. 38, pages 940–1. The Board ceased to function on 31st December, 1948.

The Board was reconstituted for five years, with similar powers, under the Commonwealth *Wheat Stabilization Act* 1948, to administer the stabilization plan. The new Board commenced to function on 18th December, 1948. The Board has been continued in existence by the Commonwealth *Wheat Industry Stabilization Acts* 1954 and 1958 for the purpose of administering the second and third five-year stabilization plans.

(iii) *Marketing of Wheat.* (a) *Stabilized Marketing.* As a large proportion of the Australian wheat crop is normally exported, the marketing of wheat occupies an important part in the industry. A detailed survey of legislation relating to stabilization of the wheat industry, including controls exercised during the 1914–18 and 1939–45 Wars and legislation establishing the Wheat Stabilization Plan in 1948, is given in the Appendix to Official Year Book No. 37, pages 1295–99.

Details of more recent plans were published in Official Year Book No. 40, pages 841 and 842 (1947–48 to 1952–53 Plan), and No. 44, page 861 (1953–54 to 1957–58).

In 1958, a new Plan for the period 1958–59 to 1962–63 was enacted. Details appear in Official Year Book No. 48, pages 903 and 904.

(b) *Cost of Production.* The cost of production of wheat, which for the first season of the current Wheat Stabilization Plan, 1958–59, was fixed at 14s. 6d. a bushel by the legislation, rose to 14s. 10d. a bushel for the 1959–60 season and to 15s. 2d. a bushel for the 1960–61 season. The guaranteed price for the seasons 1959–60 and 1960–61 was therefore 14s. 10d. and 15s. 2d. a bushel respectively, while the home consumption price, in each case including a loading of 2d. a bushel to cover costs of shipment of wheat to Tasmania, became 15s. and 15s. 4d. a bushel respectively. For the 1961–62 season, the guaranteed price was 15s. 9d. a bushel and the home consumption price was 15s. 10d. a bushel, including the Tasmanian loading of 1d. a bushel. For the 1962–63 season, these prices were 15s. 10d. and 15s. 11½d. a bushel, respectively, the latter including the Tasmanian loading of 1½d. a bushel.

(c) *F.A.Q. Standard of Wheat.* Sales and shipments of grain in bulk overseas are made on a “fair average quality” (f.a.q.) basis. Samples of wheat are obtained each year from the different wheat districts, and mixed to give a representative sample of the whole crop in each State. From this representative sample, the f.a.q. weight for each State is determined by the use of the Schopper 1-litre scale chondrometer. This standard is used as a basis for sales of each crop and it varies from year to year and from State to State. F.a.q. is an Australian term, and the method of selling differs from that of other countries, which sell according to sample, or (as in Canada) according to grades, which are fixed and do not vary from year to year. The f.a.q. method does not, however, take protein quantity and quality into account, and it gives no indication therefore of the baking strength of the resulting flour.



The f.a.q. weight of a bushel of wheat in each of the four main wheat-producing States for the 1961-62 season's crop was as follows:—New South Wales, north, 63½ lb., south and west, 61 lb.; Victoria, 64 lb.; South Australia, semi-hard, 63 lb., soft, 63½ lb.; and Western Australia, 65 lb.

(d) *Bulk Handling and Storage of Wheat.* A detailed description of the bulk handling system, including its advantages and disadvantages compared with other methods of handling, appears on pages 954-8 of Official Year Book No. 39.

New South Wales, Victoria and Western Australia have operated bulk handling systems for a number of years, and, in more recent years, other States have also introduced bulk systems. The various bodies concerned with the administration of bulk handling in the various States are:—Grain Elevators Board of New South Wales, Victorian Grain Elevators Board, State Wheat Board (Queensland), South Australian Co-operative Bulk Handling Ltd., Co-operative Bulk Handling Ltd. (Western Australia), and the Tasmanian Government.

The table below sets out the bulk handling capacities of the several States and Australia for the years 1958-59 to 1962-63.

**WHEAT: TOTAL CAPACITY OF BULK HANDLING FACILITIES(a)**  
(’000 bushels)

State	1958-59	1959-60	1960-61	1961-62	1962-63
New South Wales .. ..	69,950	73,420	73,440	75,270	79,486
Victoria .. ..	70,052	71,870	72,206	72,808	78,219
Queensland .. ..	4,142	4,196	6,216	7,486	8,730
South Australia .. ..	10,550	12,950	14,290	17,380	25,600
Western Australia .. ..	79,798	82,236	94,257	97,356	105,384
Tasmania .. ..	640	960	960	960	960
<b>Australia .. ..</b>	<b>235,132</b>	<b>245,632</b>	<b>261,369</b>	<b>271,260</b>	<b>298,379</b>

(a) Includes terminals, sub-terminals and country installations.

Particulars of the operation of the bulk handling and storage systems in each State are set out on pages 916 and 917 of Official Year Book No. 48.

(e) *International Wheat Agreements.* Details of the first and second International Wheat Agreements operative from 1st August, 1949, to 31st July, 1953, and from 1st August, 1953, to 31st July, 1956, respectively, were published in Official Year Book No. 42 (see pp. 840-1) and previous issues. Details of the third and fourth International Wheat Agreements which covered the period from 1st August, 1956, to 31st July, 1959, and 1st August, 1959, to 31st July, 1962, were published in Official Year Book Nos. 43 (p. 836) and 48 (p. 906), respectively.

A fifth International Wheat Agreement, ratified by the required number of wheat exporting and importing countries, came into force on 1st August, 1962. The new Agreement covers the three-year period from 1st August, 1962, to 31st July, 1965.

The new Agreement, negotiated at an international conference convened by the United Nations, continues the basic arrangements covered by previous Agreements. The Agreement seeks to obtain an element of stability in world wheat marketing by providing that a significant proportion of wheat entering international trade will be bought and sold at prices within a prescribed price range. The maximum and minimum prices fixed under the Agreement are expressed in terms of "Canadian currency per bushel, at the parity of the Canadian dollar determined for the purposes of the International Monetary Fund". Member exporting countries compete to supply at prices within the prescribed range, which is from 202.5 cents or about 18s. 2d. current Australian currency to 162.5 cents, or about 14s. 6d. per bushel. The maximum of the range is based on the price of Canada's No. 1 Northern

Manitoba wheat in bulk in store at Fort William/Port Arthur. The minimum f.o.b. price for each exporter is the equivalent of the c. and f. price in the United Kingdom of the minimum price of Canada's No. 1 Northern Manitoba wheat in bulk in store at Fort William/Port Arthur, using currently prevailing transportation costs and exchange rates. In determining these prices, allowance is made for such differences in quality as may be agreed between the exporting and importing countries concerned.

Member importing countries have undertaken to buy each year from member exporting countries a stated percentage of their total commercial requirements at prices within the agreed range.

The new Agreement empowers the International Wheat Council to make an annual review of the world wheat situation, including the international implication of national policies in respect to wheat production, stocks and marketing, and the disposal of wheat surpluses on non-commercial terms.

Provision has also been made for the right of appeal against excessive discounts from the minimum price on the basis of differences in quality between the basic wheat—Canada's No. 1 Northern Manitoba wheat—and the wheat supplied by other member importing countries.

Member countries of the fifth International Wheat Agreement are as follows.

*Exporters.* Argentina, Australia, Canada, France, Italy, Mexico, Spain, Sweden, Union of Soviet Socialist Republics, and the United States of America.

*Importers.* Austria, Belgium and Luxembourg, Brazil, Costa Rica, Cuba, Dominican Republic, El Salvador, Federal Republic of Germany, Federation of Rhodesia and Nyasaland, Finland, Greece, Iceland, India, Indonesia, Ireland, Israel, Japan, Liberia, Libya, the Netherlands, New Zealand, Nigeria, Norway, Peru, Philippines, Portugal, Republic of Korea, Saudi Arabia, Sierra Leone, South Africa, Switzerland, United Arab Republic, United Kingdom, Vatican City, Venezuela, and Western Samoa.

(iv) *Research into the Wheat Industry.* The extension and growth of the wheat industry in the past has been made possible to a large extent through research into new varieties of seed, crop rotation and fertilizer treatments by governmental, university and private research organizations. In recent years, there has been a growing awareness of the value of this research, and funds are being raised by a direct levy on the growers' returns.

In 1957, the Commonwealth Parliament passed legislation providing for a levy of a farthing a bushel on wheat handled by the Australian Wheat Board. This money, contributed by the growers, is to be spent by the Wheat Research Committees set up in the wheat-growing States. These Committees, which consist of representatives of wheatgrowers, universities and State Departments of Agriculture, also received a total of £284,000 under the provisions of the *Wheat Acquisition (Undistributed Moneys) Act 1958*.

The Commonwealth Government has undertaken to supply additional funds for research (with a maximum of £1 for £1 against the growers' contribution) and has set up the Wheat Industry Research Council to make recommendations on the appropriate expenditure of the Commonwealth contribution.

The Council, at its inaugural meeting in February, 1958, considered that possible avenues of research would include the breeding of better varieties, cereal chemistry, soil fertility, mechanization, the industry's cost structure and marketing problems.

The Council and the State Committees have incurred an estimated expenditure of £933,507 up to the end of June, 1961, including grants to the Commonwealth Scientific and Industrial Research Organization, State Departments of Agriculture, universities and agricultural colleges.

(v) *Wheat Farms: Number and Classification by Activity.* (a) *Number.* Particulars of the number of farms growing 20 acres and upwards of wheat for grain during each of the years 1957-58 to 1961-62, are shown in the following table. A farm worked on the share system or as a partnership is included as one holding only.

### NUMBER OF FARMS GROWING 20 ACRES AND UPWARDS OF WHEAT FOR GRAIN

State or Territory	1957-58	1958-59	1959-60	1960-61	1961-62
New South Wales .. ..	12,111	14,997	16,798	16,959	17,489
Victoria .. ..	8,856	9,074	10,555	10,625	11,648
Queensland .. ..	3,665	4,791	4,526	4,257	4,483
South Australia .. ..	7,515	7,774	7,895	8,913	9,434
Western Australia .. ..	7,957	8,060	8,444	8,614	8,722
Tasmania .. ..	95	104	154	121	222
Australian Capital Territory	10	19	23	14	25
<b>Australia .. ..</b>	<b>40,209</b>	<b>44,819</b>	<b>48,395</b>	<b>49,503</b>	<b>52,023</b>

(b) *Size Classification of Wheat Holdings.* In Australia, there exists a widespread combination of wheat growing with other rural activities. The next table provides a classification of rural holdings by the area of wheat grown and by type of activity.

Further details of definitions, and of classifications by States, are available in the bulletins *Classification of Rural Holdings by Size and Type of Activity, 1959-60, No. 1 to No. 6.*

### RURAL HOLDINGS, BY AREA OF WHEAT FOR GRAIN AND TYPE OF ACTIVITY: NUMBER OF HOLDINGS, AUSTRALIA, 1959-60

Area of wheat for grain (acres)	Type of activity									
	Sheep- cereal grain	Sheep	Cereal grain	Beef cattle	Dairying	Vine- yards	Fruit (other than vine)	Vegetables		Poultry
								Potatoes	Other and mixed	
1- 9 ..	108	685	19	30	608	10	27	71	43	41
10- 19 ..	225	812	60	37	698	10	26	50	43	49
20- 29 ..	298	719	98	33	425	7	11	17	15	33
30- 49 ..	862	1,219	309	44	449	3	17	17	16	39
50- 69 ..	1,328	925	401	42	296	2	5	3	10	16
70- 99 ..	2,004	832	589	26	230	2	2	3	8	29
100- 149 ..	4,515	796	1,072	31	158	1	3	1	14	29
150- 199 ..	3,504	302	882	9	41	..	..	..	6	15
200- 299 ..	5,980	229	1,497	12	20	1	2	..	6	8
300- 399 ..	4,073	107	942	9	1	..	..	..	2	2
400- 499 ..	2,723	35	567	1	..	..	..	..	..	2
500- 699 ..	2,775	22	567	4	2	..	..	..	..	2
700- 999 ..	1,322	17	239	3	..	..	..	1	..	..
1,000-1,999 ..	697	2	121	..	..	..	..	..	..	..
2,000 and over ..	75	1	18	..	..	..	..	..	..	..
<b>Total ..</b>	<b>30,489</b>	<b>6,703</b>	<b>7,381</b>	<b>281</b>	<b>2,928</b>	<b>36</b>	<b>93</b>	<b>163</b>	<b>163</b>	<b>265</b>
<b>Nil ..</b>	<b>2,117</b>	<b>45,323</b>	<b>770</b>	<b>10,986</b>	<b>52,505</b>	<b>4,447</b>	<b>13,211</b>	<b>2,111</b>	<b>6,653</b>	<b>4,851</b>
<b>Grand Total ..</b>	<b>32,606</b>	<b>52,026</b>	<b>8,151</b>	<b>11,267</b>	<b>55,433</b>	<b>4,483</b>	<b>13,304</b>	<b>2,274</b>	<b>6,816</b>	<b>5,116</b>

**RURAL HOLDINGS, BY AREA OF WHEAT FOR GRAIN AND TYPE OF ACTIVITY:  
NUMBER OF HOLDINGS, AUSTRALIA, 1959-60—continued**

Area of wheat for grain (acres)	Type of activity					Total classified holdings	Unclassified holdings		All holdings
	Pigs	Sugar	Tobacco	Other	Multi-purpose		Sub-commercial	Unused, special, etc.	
1- 9 ..	9	1	2	20	214	1,888	145	8	2,041
10- 19 ..	15	..	6	23	336	2,390	150	5	2,545
20- 29 ..	14	..	6	14	268	1,958	109	4	2,071
30- 49 ..	23	..	5	24	487	3,514	104	12	3,630
50- 69 ..	20	..	6	16	416	3,486	37	..	3,523
70- 99 ..	8	..	4	10	420	4,167	2	7	4,176
100- 149 ..	13	..	4	11	584	7,232	1	6	7,239
150- 199 ..	8	..	..	8	278	5,053	..	4	5,057
200- 299 ..	8	..	2	4	299	8,068	..	6	8,074
300- 399 ..	3	..	1	4	143	5,287	..	2	5,289
400- 499 ..	3	..	..	..	60	3,391	..	2	3,393
500- 699 ..	..	..	..	..	46	3,418	..	..	3,418
700- 999 ..	..	..	..	..	14	1,596	..	..	1,596
1,000-1,999 ..	..	..	..	..	10	830	..	1	831
2,000 and over ..	..	..	..	..	2	96	..	2	98
<b>Total ..</b>	<b>124</b>	<b>1</b>	<b>36</b>	<b>134</b>	<b>3,577</b>	<b>52,374</b>	<b>548</b>	<b>59</b>	<b>52,981</b>
<b>Nil ..</b>	<b>1,152</b>	<b>7,011</b>	<b>940</b>	<b>1,690</b>	<b>4,556</b>	<b>158,323</b>	<b>29,445</b>	<b>11,494</b>	<b>199,262</b>
<b>Grand Total ..</b>	<b>1,276</b>	<b>7,012</b>	<b>976</b>	<b>1,824</b>	<b>8,133</b>	<b>210,697</b>	<b>29,993</b>	<b>11,553</b>	<b>252,243</b>

(vi) *Varieties of Wheat Sown.* (a) *General.* The breeding of wheat suitable to local conditions has long been established in Australia. Farrer (1845-1905) did invaluable work in pioneering this field, and the results of his labour and the continued efforts of those who have followed him have proved of immense benefit to the industry. Their efforts have resulted in the development of disease-resistant varieties, better average yields, and a greater uniformity of sample, with which have accrued certain marketing advantages, as well as an improvement in the quality of wheat grown. More than 1,000 different varieties of Australian wheats have been catalogued by the Commonwealth Scientific and Industrial Research Organization, but the number of principal varieties grown during each season is restricted to about 45.

(b) *States, 1961-62.* The principal varieties of wheat sown and the percentage of each to the total area sown in the five main wheat-producing States of Australia were as follows (New South Wales 1960-61 season; other States 1961-62 season):—New South Wales, Glenwari (20.4), Bencubbin (10.1), Gabo (9.0); Victoria, Insignia (47.1), Pinnacle (23.7), Olympic (16.7); Queensland, Festival (36.2), Spica (23.4); South Australia, Insignia (29.4), Gabo (19.7), Sabre (13.2); and Western Australia, Gabo (37.3), Insignia (16.2), Insignia 49 (11.2). A detailed table of wheat varieties sown in the latter four States appears in the annual bulletin: *The Wheat Industry*, No. 102, January, 1963.

(vii) *Area, Production and Yield per Acre.* (a) *Summary.* Prominent factors in the early development were the increase in population following the discovery of gold and the redistribution of labour after the surface gold had been won. The economic depression of 1893 interrupted its progress, but its subsequent recovery was assisted by the invention of mechanical appliances, the use of superphosphates as an aid to production, and the introduction of new and more suitable varieties of wheat for Australian conditions. The establishment of closer settlement schemes and the settling of returned soldiers and others on the land were additional factors in its expansion.

The area, production and yield per acre of wheat for grain in each State are shown below for the years 1957-58 to 1961-62 in comparison with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

## WHEAT FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES)								
Average for three years ended—								
1938-39 .. ..	4,366	2,609	366	3,100	3,005	18	2	13,466
1948-49 .. ..	4,519	3,241	439	2,319	2,685	7	4	13,214
1958-59 .. ..	2,392	1,737	508	1,392	3,005	5	1	9,040
Year—								
1957-58 .. ..	2,257	1,835	461	1,331	2,957	6	1	8,848
1958-59 .. ..	3,178	1,810	704	1,407	3,292	7	1	10,399
1959-60 .. ..	3,950	2,261	683	1,549	3,719	8	2	12,172
1960-61 .. ..	4,076	2,672	693	1,969	4,021	7	1	13,439
1961-62 .. ..	4,498	2,849	750	2,229	4,380	16	1	14,723

## PRODUCTION ('000 BUSHEL)(a)

Average for three years ended—								
1938-39 .. ..	56,890	36,374	4,783	34,606	31,539	434	45	164,671
1948-49 .. ..	58,537	48,332	8,569	28,856	31,517	138	78	176,027
1958-59 .. ..	35,178	36,705	9,938	26,126	40,950	135	15	149,047
Year—								
1957-58 .. ..	10,603	32,134	6,657	14,914	33,100	153	5	97,566
1958-59 .. ..	66,441	42,697	16,097	32,032	57,650	164	40	215,121
1959-60 .. ..	75,358	38,793	13,522	11,929	58,670	182	47	198,501
1960-61 .. ..	84,657	67,587	10,999	46,395	63,900	148	30	273,716
1961-62 .. ..	78,350	56,879	12,018	33,854	65,700	345	32	247,178

## YIELD PER ACRE (BUSHEL) (a)

Average for three years ended—								
1938-39 .. ..	13.0	13.9	13.1	11.2	10.5	24.1	22.5	12.2
1948-49 .. ..	13.0	14.9	19.5	12.4	11.7	19.7	19.5	13.3
1958-59 .. ..	14.7	21.1	19.6	18.8	13.6	24.7	15.0	16.5
Year—								
1957-58 .. ..	4.7	17.5	14.5	11.2	11.2	26.1	8.9	11.0
1958-59 .. ..	20.9	23.6	22.9	22.8	17.5	25.4	28.1	20.7
1959-60 .. ..	19.1	17.2	19.8	7.7	15.8	22.0	26.8	16.3
1960-61 .. ..	20.8	25.3	15.9	23.6	15.9	21.4	28.5	20.4
1961-62 .. ..	17.4	20.0	16.0	15.2	15.0	22.2	22.7	16.8

(a) 60 lb. per bushel.

A graph showing the area sown to wheat for grain in Australia since 1900-1 appears on page 993, while a map showing the distribution of areas growing wheat for grain throughout Australia in 1954-55 appeared on page 833 of Official Year Book No. 43. Similar maps showing the distribution of wheat areas in 1924-25, 1938-39 and 1947-48 appeared respectively in Official Year Books No. 22, page 695, No. 34, page 451 and No. 39, pages 977-8.

(b) *Production.* Apart from the variations in the area sown, the size of the wheat harvest in Australia is largely determined by the nature of the season, resulting in considerable year-to-year fluctuations in production.

The main wheat-producing States of Australia are New South Wales, Victoria, South Australia and Western Australia. Queensland production normally approaches local demands, but Tasmania imports wheat from the mainland to satisfy its needs, though it exports flour made from local wheat which is particularly suitable for biscuits.

Production of wheat in 1961-62 at 247,178,000 bushels was 10 per cent. less than in the previous season, with the major States except Queensland and Western Australia recording decreases. The most notable decreases in 1961-62 compared with 1960-61 occurred in Victoria and South Australia, where production diminished by 10,708,000 bushels (16 per cent.) and 12,541,000 bushels (27 per cent.), respectively.

(c) *Yield per Acre.* Short-term variations in yield per acre are due chiefly to seasonal influences. High yields per acre for Australia for single seasons since 1901 were obtained in 1920-21, 16.1 bushels; in 1942-43, 16.8 bushels; in 1949-50, 17.8 bushels; in 1952-53, 19.1 bushels; in 1953-54, 18.4 bushels; in 1955-56, 19.2 bushels; in 1958-59, 20.7 bushels (a record); in 1959-60, 16.3 bushels; and in 1960-61, 20.4 bushels. The yield per acre for 1961-62 was 16.8 bushels.

(d) *Decennial Averages, 1861-70 to 1951-60.* The following table shows the average area, production and yield per acre for decennial periods since 1861 together with similar details for the latest season, 1961-62. Repeated cropping and short rotations (mainly in the eastern States) are believed to have led to the decline in yield to 1900, while fallowing and the widespread use of artificial fertilizers contributed to the increased yields in the decade following. The increase in yield since 1950 has been generally ascribed to the impact of improved pastures and ley-farming (broadly, the alternation of crops and pastures) upon soil fertility in wheat-growing areas.

#### WHEAT FOR GRAIN: AVERAGE AREA AND PRODUCTION, AUSTRALIA

Period	Area	Production	Yield per acre
Yearly average—	'000 acres	'000 bushels	Bushels
1861-70 .. .. .	831	10,622	12.8
1871-80 .. .. .	1,646	17,711	10.8
1881-90 .. .. .	3,258	26,992	8.3
1891-1900 .. .. .	4,087	29,934	7.3
1901-10 .. .. .	5,711	56,058	9.8
1911-20 .. .. .	8,928	95,480	10.7
1921-30 .. .. .	11,291	135,400	12.0
1931-40 .. .. .	14,176	177,758	12.5
1941-50 .. .. .	11,358	145,599	12.8
1951-60 .. .. .	10,164	173,622	17.1
Year—			
1961-62 .. .. .	14,723	247,178	16.8

(viii) *Price of Wheat.* (a) *Home Consumption.* The prices charged by the Australian Wheat Board for wheat sold to millers for gristing into flour for consumption in Australia and for wheat sold as stock feed were as follows:—year ended 30th November, 1959, 14s. 8d.; 1960, 15s. 0d.; 1961, 15s. 4d.; 1962, 15s. 10d.; and 1963, 15s. 11½d. These prices include a loading to meet freight charges incurred on wheat shipped to Tasmania (2d. from 1958 to 1961; 1d. in 1962; and 1½d. in 1963).

(b) *Export Wheat Prices.* The Wheat Board's monthly basic export selling prices for f.a.q. bulk wheat f.o.b. basis, both for wheat sold under the International Wheat Agreement and for "free" wheat sold on the open market, fell in the following ranges:—season ended 31st July, 1959, 13s. 4d. to 14s. 6½d.; 1960, 13s. 3d. to 13s. 6d.; 1961, 13s. 5d. to 13s. 9d.; 1962, 13s. 10½. to 14s. 10½d. Actual selling prices have been lower than the basic prices in some cases, particularly where other exporting countries enjoy a geographical freight advantage.

The 1959 International Wheat Agreement set the maximum price at 200 cents a bushel and the minimum at 150 cents for f.a.q. wheat sold under the Agreement. Under the current 1962 Agreement operative from 1st August, 1962 (see paragraph 1 (iii) (e), p. 1014), the agreed price range is between 202.5 cents and 162.5 cents. Directly converted into Australian currency these limits are approximately 18s. 2d. and 14s. 6d. a bushel respectively.

Details of export wheat prices in previous years, including those received for wheat sold under the terms of the 1949-1953 International Wheat Agreement, are given in Official Year Book No. 40, pages 849-50, and statistical bulletin: *The Wheat Industry, Australia*, No. 95 of April, 1959, and in previous issues of these publications.

(ix) *Value of the Wheat Crop.* The estimated gross value of the wheat crop in each State and in Australia during the season 1961-62 and the value per acre are shown below.

#### WHEAT FOR GRAIN: VALUE OF CROPS(a), 1961-62

Particulars		N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value	£'000	58,371	42,697	9,035	25,757	50,012	276	24	186,172
Value per acre ..	£	13.0	15.0	12.1	11.5	11.4	17.8	16.9	12.6

(a) Gross value of total crop, including wheat used for seed and for stock feed on farms. Also includes payment of £7,288,000 by the Commonwealth Government.

(x) *Production and Disposal of Wheat in Australia.* In the following tables, details are given of Australian Wheat Board transactions and of total production and disposal of wheat during each of the years ended 30th November, 1958 to 1962. (For particulars of production and yield from 1935-36 see graphs, p. 994.)

(a) *Wheat Acquired.* Particulars of wheat acquired by the Australian Wheat Board from the 1958-59 to 1961-62 harvests are shown in the following table.

#### AUSTRALIAN WHEAT BOARD: WHEAT ACQUIRED

('000 bushels)

Pool	Harvest	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
21 .. ..	1957-58	4,617	29,547	5,247	12,535	29,306	74	81,326
22 .. ..	1958-59	59,990	41,216	15,206	29,548	53,348	82	199,390
23 .. ..	1959-60	67,073	37,099	11,832	9,112	54,132	91	179,339
24 .. ..	1960-61	72,984	66,881	8,821	43,706	59,012	63	251,467
25 .. ..	1961-62	67,783	55,120	9,981	30,737	60,458	208	224,287

(b) *Stocks of Wheat and Flour.* Stocks of wheat (including flour in terms of wheat) held by the Australian Wheat Board in each State at 30th November for the years 1958 to 1962 are shown in the following table. These data relate to stocks held at mills, sidings, ports and depots as recorded by the Australian Wheat Board.

#### AUSTRALIAN WHEAT BOARD: STOCKS(a) OF WHEAT (INCLUDING FLOUR IN TERMS OF WHEAT), 30th NOVEMBER

('000 bushels)

Year	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	Australia
1958 .. ..	4,420	6,172	116	3,262	2,260	222	16,452
1959 .. ..	19,934	16,390	987	5,951	21,657	447	65,366
1960 .. ..	19,878	16,639	451	2,203	20,995	535	60,701
1961 .. ..	7,701	8,780	965	3,122	3,338	452	24,358
1962 .. ..	5,574	6,021	1,333	1,831	2,449	491	17,699

(a) Held at mills, sidings, ports and depots.

NOTE.—One short ton (2,000 lb.) of flour is taken to be equivalent to 46.3 bushels of wheat.

(c) *Wheat Disposal.* Details relating to the disposal of wheat during the years ended 30th November, 1958 to 1962, are shown in the following table.

**AUSTRALIAN WHEAT BOARD: DISPOSAL OF WHEAT(a)**  
(’000 bushels)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Sold for export as wheat .. ..	34,399	70,940	97,645	202,027	152,818
Sold for export as flour (b) .. ..	16,868	25,248	26,147	29,438	25,123
Sold for local consumption as flour .. ..	39,213	40,174	42,713	39,814	40,736
Sold for other purposes .. ..	16,894	13,484	16,635	15,107	11,635

(a) Years ended 30th November.  
exported.

(b) Includes wheat equivalent of manufactured wheat products

(d) *Production and Disposal.* A summary of all transactions in wheat for Australia, as distinct from those recorded for the Wheat Board above, appears in the following table. The particulars for local consumption are based on sales made by the Australian Wheat Board, whilst those relating to exports represent actual shipments.

**WHEAT: PRODUCTION AND DISPOSAL, AUSTRALIA**  
(Million bushels)

Particulars	Year ended 30th November—				
	1958	1959	1960	1961	1962
Opening stocks (including flour)(a) ..	41.5	16.5	65.4	60.7	24.4
Production .. ..	97.6	215.1	198.5	273.7	247.2
Imports .. ..	1.5	..	..	..	..
<i>Total Available Supplies</i> ..	<i>140.6</i>	<i>231.6</i>	<i>263.9</i>	<i>334.4</i>	<i>271.6</i>
Exports—					
Wheat .. ..	33.6	71.7	98.1	205.1	152.8
Flour(a) .. ..	17.5	26.8	26.7	31.6	24.5
Breakfast foods and other products(a) ..	0.6	0.4	0.6	0.5	0.6
Local consumption—					
Flour(a) .. ..	39.2	40.2	41.3	41.2	40.7
Stock feed .. ..	15.0	11.6	14.7	13.2	10.0
Seed .. ..	11.1	12.0	12.6	13.8	14.0
Breakfast foods and other products(a) ..	1.9	1.9	1.9	1.9	1.6
Balance retained on farm (excluding seed)	6.1	3.7	6.6	8.4	8.9
Closing stocks (including flour)(a) ..	16.5	65.4	60.7	24.4	17.7
<i>Total Disposals</i> .. ..	<i>141.5</i>	<i>233.7</i>	<i>263.2</i>	<i>340.1</i>	<i>270.8</i>
Excess (+) or Deficiency (—) of Disposals in respect of Available Supplies(b) ..	+0.9	+2.1	—0.7	+5.7	—0.8

(a) In terms of wheat.  
loss in out-turn, etc.

(b) Includes allowance for unrecorded movements in stocks, gain or

NOTE.—One short ton (2,000 lb.) of flour is taken to be equivalent to 46.3 bushels of wheat.

(e) *Finance.* The *Wheat Industry Stabilization Act* 1948 empowered the Minister to arrange with the Commonwealth Bank for advances to the Board, the advances being guaranteed by the Commonwealth Government. These provisions have been continued in the subsequent legislation, with the exception that advances are now arranged through the Reserve Bank.



**AUSTRALIAN WHEAT BOARD: FINANCIAL OPERATIONS, POOLS Nos. 21 to 25**  
(£'000)

Particulars	No. 21 Pool (1957-58 Harvest)	No. 22 Pool (1958-59 Harvest)	No. 23 Pool (1959-60 Harvest)	No. 24 Pool (1960-61 Harvest)	No. 25 Pool(a) (1961-62 Harvest)
Paid to growers .. ..	47,911	117,336	108,641	152,685	145,046
Rail freight .. ..	4,926	13,687	12,999	18,715	16,930
Expenses .. ..	4,257	8,868	9,384	9,326	8,200
<b>Total Payments</b> ..	<b>57,094</b>	<b>139,891</b>	<b>131,024</b>	<b>180,726</b>	<b>170,176</b>
Value of sales delivered ..	(b) 56,808	(c) 133,598	(d) 123,187	(e) 172,103	(f) 162,241

(a) Incomplete. (b) Subject to additional £397,000 withdrawn from Wheat Prices Stabilization Fund and payment of £85,000 to Wheat Industry Research Fund. (c) Subject to additional £6,532,000 withdrawn from Wheat Prices Stabilization Fund and payment of £207,000 to Wheat Industry Research Fund. (d) Subject to additional £8,024,000 (of which the Commonwealth Government provided £3,022,000) withdrawn from Wheat Prices Stabilization Fund and payment of £187,000 to Wheat Industry Research Fund. (e) Subject to additional £8,884,000 provided by the Commonwealth Government and payment of £261,000 to Wheat Industry Research Fund. (f) Subject to additional £7,288,000 provided by the Commonwealth Government and payment of £233,000 to Wheat Industry Research Fund.

NOTE.—Details of earlier pools will be found in previous issues of the Year Book.

(xi) *Imports of Wheat.* Wheat and flour have been imported in substantial quantities on three occasions since 1900; in 1902-3, the wheat harvest was only 12,378,000 bushels, and wheat and flour representing 12,468,000 bushels of wheat were imported. An equivalent of 7,279,000 bushels was imported in 1914-15 to supplement the yield of 25 million bushels produced in that season. Owing to drought conditions in 1957-58, wheat supplies were insufficient for local requirements and, as a result, 1,485,000 bushels were imported from Canada in 1958. No wheat has since been imported.

(xii) *Exports of Wheat and Flour.* Statistics in this sub-paragraph relate to years ended 30th June. Export figures relate to the exports of Australian produce only.

(a) *Quantity and Value.* The following table shows particulars of the exports of wheat and flour and the total of both, in terms of wheat, for each of the years 1957-58 to 1961-62.

**WHEAT AND FLOUR: EXPORTS FROM AUSTRALIA**

Year	Quantity				Value		
	Wheat	Flour		Total (in terms of wheat)	Wheat	Flour(a)	Total
		As flour (a)	In terms of wheat				
	'000 bushels	Short tons	'000 bushels	'000 bushels	£A.'000 f.o.b.	£A.'000 f.o.b.	£A.'000 f.o.b.
1957-58 .. ..	39,572	479,985	22,223	61,795	28,494	15,059	43,553
1958-59 .. ..	54,626	467,697	21,654	76,280	38,381	14,001	52,382
1959-60 .. ..	91,244	557,999	25,835	117,079	61,680	15,811	77,491
1960-61 .. ..	152,981	679,179	31,446	184,427	102,426	19,637	122,063
1961-62 .. ..	203,137	602,665	27,903	231,040	142,446	18,164	160,610

(a) White flour, sharps and wheatmeal for baking.

NOTE.—One short ton (2,000 lb.) of flour is taken to be equivalent to 46.3 bushels of wheat.

(b) *Destination of Wheat.* The following table shows the exports of wheat to various countries for each of the five years ended 1961-62.

## WHEAT: EXPORTS FROM AUSTRALIA

('000 bushels)

Country to which exported	1957-58	1958-59	1959-60	1960-61	1961-62
United Kingdom .. .. .	9,791	21,225	20,983	27,408	23,280
India .. .. .	434	1,317	11,705	4,910	21,164
New Zealand .. .. .	9,679	8,228	7,903	6,107	6,251
Pakistan .. .. .	4,720	720	3,875	3,873	18
Other Commonwealth countries ..	6,843	11,243	11,026	9,756	10,395
China, Republic of (Mainland) ..	71	317	..	40,293	71,753
Germany, Federal Republic of ..	6,761	7,567	13,908	13,109	11,153
Japan .. .. .	..	1,754	4,230	4,426	15,696
Other foreign countries .. .. .	1,273	2,255	17,614	43,099	43,427
<b>Total .. .. .</b>	<b>39,572</b>	<b>54,626</b>	<b>91,244</b>	<b>152,981</b>	<b>203,137</b>

(c) *Destination of Flour.* The following table shows the exports of flour to various countries for each of the five years ended 1961-62. The figures relate to exports of white flour, sharps and wheatmeal for baking.

## FLOUR: EXPORTS FROM AUSTRALIA

(Short tons)

Country to which exported	1957-58	1958-59	1959-60	1960-61	1961-62
United Kingdom .. .. .	43,156	45,837	46,256	56,135	66,560
Aden .. .. .	21,764	34,867	25,689	32,874	34,969
Ceylon .. .. .	51,613	61,382	142,339	117,563	178,503
Malaya, Federation of .. .. .	70,299	92,427	112,417	107,304	83,139
Singapore .. .. .	37,590	40,735	36,658	41,790	52,872
Other Commonwealth countries ..	90,432	88,491	96,016	97,673	94,285
Indonesia .. .. .	62,897	37,856	32,925	93,617	21,266
Kuwait .. .. .	8,234	12,845	9,454	19,595	11,999
Thailand .. .. .	16,731	15,550	14,646	14,483	13,497
Other foreign countries .. .. .	77,269	37,707	41,599	98,145	45,575
<b>Total .. .. .</b>	<b>479,985</b>	<b>467,697</b>	<b>557,999</b>	<b>679,179</b>	<b>602,665</b>

(xiii) *World Area and Production of Wheat.* The figures in the following table of the world area and production of wheat by principal countries and by continents have been compiled from the statistics published by the Foreign Agricultural Service of the United States Department of Agriculture. Years shown refer to years of harvest in the northern hemisphere. Harvests of the northern hemisphere countries are combined with those of the southern hemisphere which immediately follow; thus, the crop harvested in the northern hemisphere in 1961 is combined with preliminary forecasts for the southern hemisphere harvests which began late in 1961 and ended early in 1962.

# WHEAT: AREA, PRODUCTION AND YIELD PER ACRE IN VARIOUS COUNTRIES

(Source: *Foreign Crops and Markets*—United States Department of Agriculture)

Continent and country	Area(a)			Production			Yield per acre		
	1959	1960	1961	1959	1960	1961	1959	1960	1961
	'000 acres	'000 acres	'000 acres	'000 bushels	'000 bushels	'000 bushels	bus.	bus.	bus.
North America—									
Canada ..	23,065	23,198	25,316	413,520	517,624	283,394	17.9	22.3	11.2
United States ..	51,781	51,896	51,551	1,121,118	1,357,272	1,234,743	21.7	26.2	24.0
<i>Total(b)</i> ..	77,270	77,030	78,970	1,582,000	1,925,000	1,570,000	20.5	24.6	19.9
Europe—									
France ..	10,970	10,769	9,876	425,000	405,000	351,800	38.7	37.6	35.6
Italy ..	11,600	11,300	10,721	311,200	250,000	305,000	26.8	22.1	28.4
Spain ..	10,774	10,230	8,700	175,000	130,000	123,680	16.2	12.7	14.2
<i>Total(b)</i> ..	72,540	70,220	66,640	2,065,000	1,915,000	1,865,000	28.5	27.3	28.0
U.S.S.R. (Europe and Asia)(c) ..	157,000	148,500	155,000	1,900,000	1,700,000	1,900,000	12.1	11.4	12.3
Africa(c) ..	17,960	18,220	16,850	195,000	210,000	160,000	10.9	11.5	9.5
Asia—									
China ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
India ..	31,141	32,542	32,047	365,000	376,700	403,900	11.7	11.6	12.6
Pakistan ..	12,000	12,192	11,603	144,000	144,700	141,340	12.0	11.9	12.2
Turkey ..	15,500	15,600	15,500	225,000	260,000	225,000	14.5	16.7	14.5
<i>Total(b)</i> ..	138,260	144,600	138,170	1,915,000	1,920,000	1,865,000	13.8	13.3	13.5
South America—									
Argentina ..	10,818	8,893	10,374	215,000	150,000	190,000	19.9	16.9	18.3
<i>Total(b)</i> ..	16,860	15,310	16,030	290,000	235,000	265,000	17.2	15.3	16.5
Oceania—									
Australia ..	12,172	13,439	14,723	198,501	273,716	247,178	16.3	20.4	16.8
<i>Total(b)</i> ..	12,336	13,626	14,906	208,000	283,000	255,000	16.8	20.8	17.1
<b>World Total(b) ..</b>	<b>492,230</b>	<b>487,510</b>	<b>486,570</b>	<b>8,155,000</b>	<b>8,188,000</b>	<b>7,880,000</b>	<b>16.6</b>	<b>16.7</b>	<b>16.2</b>

(a) Figures refer to harvested areas as far as possible. For Australia, area sown is shown.  
 (b) Estimated totals, which in the case of production are rounded to millions, include allowances for any missing data for countries shown and for other producing countries not shown. (c) Estimated.

(xiv) *Principal Exporting and Importing Countries.* The following table shows the quantities of wheat traded by the chief exporting and importing countries for the years 1959–60 to 1961–62, based on statistics recently published by the Food and Agriculture Organization of the United Nations.

While Australia's production of wheat averages less than 3 per cent. of the world's total, its exports account for a much higher proportion of the total quantities shipped. In 1961–62, for example, Australia's share of world wheat exports amounted to 14.5 per cent.

# WHEAT (INCLUDING FLOUR IN TERMS OF WHEAT): PRINCIPAL EXPORTING AND IMPORTING COUNTRIES

(Source: *World Grain Trade Statistics*—Food and Agriculture Organization of the United Nations)

Country	1959-60		1960-61		1961-62(a)	
	Quantity	Proportion of world total	Quantity	Proportion of world total	Quantity	Proportion of world total
EXPORTING COUNTRIES						
	million bushels	per cent.	million bushels	per cent.	million bushels	per cent.
United States of America ..	508.7	43.3	660.9	46.3	716.5	44.9
Canada .. .. .	276.6	23.6	342.0	24.0	365.1	22.9
Australia .. .. .	117.1	10.0	184.4	12.9	231.0	14.5
Argentina .. .. .	78.7	6.7	71.5	5.0	86.4	5.4
France .. .. .	65.1	5.5	57.3	4.0	67.4	4.2
U.S.S.R.(b) .. .. .	30.7	2.6	45.7	3.2	45.6	2.9
Germany, Federal Republic of ..	29.0	2.5	30.3	2.1	43.3	2.7
All other .. .. .	67.7	5.8	36.1	2.5	40.1	2.5
<i>Total(c)</i> .. .. .	<i>1,173.6</i>	<i>100.0</i>	<i>1,428.2</i>	<i>100.0</i>	<i>1,595.4</i>	<i>100.0</i>

IMPORTING COUNTRIES						
	million bushels	per cent.	million bushels	per cent.	million bushels	per cent.
United Kingdom .. .. .	164.2	14.3	173.1	12.5	172.4	11.2
China, Republic of (Mainland)(b)	(d)	(d)	72.8	5.3	169.0	11.0
Germany, Federal Republic of ..	76.9	6.7	81.0	5.8	129.2	8.4
India .. .. .	131.7	11.5	140.6	10.2	105.5	6.9
Japan .. .. .	94.3	8.2	104.1	7.5	101.9	6.6
Brazil .. .. .	65.2	5.7	73.9	5.3	83.9	5.4
United Arab Republic .. .. .	47.7	4.2	36.5	2.6	62.8	4.1
Netherlands .. .. .	40.9	3.6	34.5	2.5	50.0	3.2
Spain .. .. .	2.2	0.2	35.9	2.6	46.9	3.0
Turkey .. .. .	2.5	0.2	9.7	0.7	44.3	2.9
Yugoslavia .. .. .	18.0	1.6	13.0	0.9	39.2	2.5
Italy .. .. .	4.1	0.4	87.1	6.3	33.1	2.2
All other .. .. .	496.9	43.4	523.0	37.8	501.7	32.6
<i>Total(c)</i> .. .. .	<i>1,144.6</i>	<i>100.0</i>	<i>1,385.2</i>	<i>100.0</i>	<i>1,539.9</i>	<i>100.0</i>

(a) Preliminary. (b) Unofficial estimate. (c) Total exports do not necessarily agree with total imports because of the time lag between shipments and arrivals. (d) Less than .05 of the unit shown.

NOTE.—One short ton (2,000 lb.) of flour is taken to be equivalent to 46.3 bushels of wheat.

Estimates of exports to, and imports from, the U.S.S.R. and Mainland China in the table above are based entirely on available trade returns of the trading partners outside the Sino-Soviet bloc. No account is taken of trade within this bloc because of the incomplete nature of the data.

2. Oats.—(i) *General.* This cereal is widely grown in all agricultural areas which have autumn, winter and spring rainfall, and is tolerant to wet conditions and heavy soils. It has excellent feed value, and produces a higher yielding crop than other winter cereals. It needs less cultivation, but requires ample fertilizer. Oats has a variety of uses: as a pasture plant when rough sown into stubble or heavy clover pastures, as silage if cut before maturity, as a hay crop when mown and baled or cut for chaff, or as a grain when stripped (the stubble then being grazed off). The grain is sold on a "fair average quality" basis through voluntary pools in Victoria, South Australia and Western Australia. Excessive bulk in the husk and a fluctuating export price limit the extent of oversea trade.

(ii) *Area, Production and Yield per Acre.* Oats is usually next in importance to wheat among the grain crops cultivated in Australia. However, while wheat grown for grain in 1961-62 accounted for 50 per cent. of the area of all crops, oats grown for grain represented only 10 per cent. The area, production and yield per acre of oats in each State are shown below for the years 1957-58 to 1961-62 in comparison with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

### OATS FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE

Period	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
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#### AREA ('000 ACRES)

Average for three years ended—								
1938-39 .. ..	297	478	8	338	425	26	(a)	1,572
1948-49 .. ..	515	548	21	282	484	17	1	1,868
1958-59 .. ..	756	735	29	445	1,178	20	(a)	3,163
Year—								
1957-58 .. ..	716	622	19	427	1,154	21	(a)	2,959
1958-59 .. ..	1,130	971	39	481	1,330	22	1	3,974
1959-60 .. ..	567	673	22	506	1,240	22	(a)	3,030
1960-61 .. ..	917	835	19	512	1,330	23	1	3,637
1961-62 .. ..	713	774	27	324	1,231	27	1	3,097

#### PRODUCTION ('000 BUSHEL) (b)

Average for three years ended—								
1938-39 .. ..	4,065	4,781	65	2,575	4,159	810	6	16,461
1948-49 .. ..	7,166	9,757	324	3,606	5,355	406	7	26,621
1958-59 .. ..	12,619	14,140	547	7,911	15,606	409	10	51,242
Year—								
1957-58 .. ..	3,944	9,528	256	3,423	13,793	482	(c)	31,426
1958-59 .. ..	27,638	23,339	832	11,992	22,585	491	28	86,905
1959-60 .. ..	11,125	12,701	394	2,504	19,599	512	6	46,841
1960-61 .. ..	21,466	20,666	285	11,478	21,810	391	11	76,107
1961-62 .. ..	13,225	16,312	412	4,391	20,187	587	16	55,130

#### YIELD PER ACRE (BUSHEL) (b)

Average for three years ended—								
1938-39 .. ..	13.7	10.0	8.1	7.6	9.8	3.1	24.3	10.5
1948-49 .. ..	13.9	17.8	15.4	12.8	11.1	2.4	11.8	14.3
1958-59 .. ..	16.7	19.2	18.9	17.8	13.3	20.5	22.5	16.2
Year—								
1957-58 .. ..	5.5	15.3	13.4	8.0	12.0	23.3	7.4	10.6
1958-59 .. ..	24.5	24.0	21.3	24.9	17.0	22.1	26.6	21.9
1959-60 .. ..	19.6	18.9	18.4	5.0	15.8	23.2	24.8	15.5
1960-61 .. ..	23.5	24.7	15.0	22.4	16.4	16.8	20.9	20.9
1961-62 .. ..	18.5	21.1	15.4	13.6	16.4	21.8	18.7	17.8

(a) Less than 500 acres.

(b) 40 lb. per bushel.

(c) Less than 500 bushels.

Graphs showing the area sown to oats and production of oats in Australia appear on pages 993 and 995 respectively.

In 1958-59, extremely favourable seasonal conditions for all cereal crops were experienced, and production of oats reached the record level of 86,905,000 bushels, the previous record having been 56,487,000 bushels in 1955-56.

A record yield was also established in 1958-59 at 21.9 bushels per acre. The next highest yield was 19.3 bushels per acre in 1947-48. The lowest yield recorded was 4.4 bushels per acre in the abnormally dry season of 1944-45.

(iii) *Price of Oats.* The average wholesale price in the Melbourne market for oats of good milling quality was 7s. 0½d. a bushel in 1961-62, compared with 7s. 1½d. in 1960-61.

(iv) *Value of Oat Crop.* The estimated gross value of the oat crop in each State for the 1961-62 season and the value per acre were as follows.

#### OATS: VALUE OF CROP, 1961-62

Particulars	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £'000	4,959	5,732	180	1,313	7,525	286	6	20,001
Value per acre .. £	7.0	7.4	6.7	4.1	6.1	10.6	6.9	6.4

(v) *Exports.* The production of oats in Australia is sufficient to allow for an export trade which fluctuates with the incentive offered by overseas prices. The quantities and values of Australian produced oats exported from Australia during the years 1957-58 to 1961-62 are shown below.

#### OATS: EXPORTS, AUSTRALIA

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Quantity .. .. '000 bus.	2,240	17,557	11,969	19,005	19,064
Value .. .. £A.'000 f.o.b.	1,008	6,512	5,031	6,854	7,479

In 1961-62, the principal countries of destination were the Federal Republic of Germany (9,728,000 bushels), the Netherlands (4,647,000 bushels), Republic of China (Mainland) (2,615,000 bushels), and the United Kingdom (1,118,000 bushels). Imports of oats into Australia are not recorded separately.

(vi) *Oatmeal and Other Oat Products.* In 1961-62, the production of oatmeal was 15,611 tons for porridge and 18,616 tons for other purposes. This was equivalent to about 3,422,800 bushels of oats.

(vii) *World Production.* The world's production of oats for the year 1961, according to figures released by the United States Department of Agriculture, amounted to 3,505 million bushels, harvested from 99.1 million acres, representing an average yield of 35.4 bushels per acre. This compared with an estimated production in the previous year of 3,955 million bushels from an area of 105.5 million acres and an average yield of 37.5 bushels an acre.

3. **Barley.**—(i) *General.* This cereal contains two main groups of varieties: 2-row and 6-row. The former is generally, but not exclusively, preferred for malting purposes.

Barley was formerly stubble-sown, but is now grown principally on pasture land worked up early in the year of sowing. In this way, it forms an important phase in the rotation of the land. Like oats, it may also be sown for fodder production or for grain. When sown for fodder, sowing may take place either early or late in the season, as it has a short growing period. It may thus provide grazing or fodder supplies when other sources are not available. Barley grain may be crushed to meal for stock (especially pigs) or sold for malting. Crops sown for malting purposes require well-worked, weed-free paddocks of even soil, and are thus restricted to specific districts.

The main barley-growing areas in Australia are situated in Victoria (Mallee, North Wimmera, Mt. Gambier region and Geelong) and South Australia (Eyre and Yorke Peninsulas). In Western Australia, it is grown in the higher rainfall areas on the western edge of the wheat belt.

(ii) *Barley Boards.* The bulk of the barley crop in the various States is acquired and marketed by grower-controlled boards. Pooled returns from sales are distributed to growers at standard rates for the individual grades and varieties delivered. The Victorian and South Australian crops are marketed by the Australian Barley Board (a joint board established by the two State governments) and the Queensland and Western Australian Barley Boards handle the crops of their respective States.

(iii) *Australian Barley Board Operations.* Particulars for the proportion of barley production which was received by the Australian Barley Board (for Victoria and South Australia), together with details of quantity sold, advances and total payments to growers, are presented below.

#### AUSTRALIAN BARLEY BOARD: BARLEY RECEIVED, SOLD, ETC.

Pool			Quantity received	Quantity sold(a)	Total advances made per bushel on 2-row No. 1 Grade less freight	Total net payments to growers
			'000 bushels	'000 bushels	s. d.	£'000
No. 19 (1957-58 Crop)	..	..	18,023	18,195	11 9. 61	9,152
" 20 (1958-59 "	)	..	42,550	42,560	10 10. 1	19,617
" 21 (1959-60 "	)	..	11,773	11,797	10 0. 51	4,904
" 22 (1960-61 "	)	..	44,624	44,680	9 3. 26	16,989
" 23 (1961-62 "	)	..	20,081	20,059	(b) 10 6	8,596

(a) Includes surplus in out-turn except for No. 23 Pool, for which this surplus has not yet been determined.

(b) As at 15th May, 1963. At that date, it was estimated that the amount still to be paid to growers was 13.28d. per bushel.

(iv) *Area, Production and Yield per Acre.* There has been a substantial increase in the area of barley sown for grain in recent years (particularly in Western Australia and Queensland), and in 1960-61 the area sown reached the record level of 2,830,000 acres. The area sown in 1961-62, at 2,383,000 acres, was 16 per cent. less than the area in 1960-61. The production of barley for grain in 1961-62, at 41,504,000 bushels, was 39 per cent. less than the record production of 67,970,000 bushels in 1960-61. The area, production and yield per acre of barley for grain in the several States for the years 1957-58 to 1961-62, compared with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59, are shown in the following table.

## BARLEY FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES)								
Average for three years ended—								
1938-39 ..	13	138	10	391	53	8	(a)	613
1948-49 ..	23	166	18	587	65	7	(a)	866
1958-59 ..	73	354	184	1,255	324	8	..	2,198
Year—								
1957-58 ..	69	352	173	1,212	307	8	..	2,121
1958-59 ..	106	363	249	1,332	322	9	..	2,381
1959-60 ..	118	278	260	1,290	421	12	..	2,379
1960-61 ..	190	309	219	1,556	541	15	..	2,830
1961-62—								
2-row ..	126	212	157	1,223	59	19	..	2,383
6-row ..	75	13	20	48	431			
Total ..	201	225	177	1,271	490	19	..	2,383

## PRODUCTION ('000 BUSHEL)(b)

Average for three years ended—								
1938-39 ..	197	2,174	135	6,816	660	252	(c)	10,234
1948-49 ..	316	3,149	375	11,964	748	194	(c)	16,746
1958-59 ..	1,463	7,192	4,673	29,740	4,239	267	..	47,574
Year—								
1957-58 ..	685	5,447	2,956	17,552	3,556	270	..	30,466
1958-59 ..	2,922	8,581	8,103	37,665	5,410	295	..	62,976
1959-60 ..	2,581	5,593	6,650	11,857	7,080	418	..	34,179
1960-61 ..	4,786	7,718	4,393	42,233	8,496	344	..	67,970
1961-62—								
2-row ..	2,562	4,415	3,144	20,636	982	607	..	41,504
6-row ..	1,575	239	388	656	6,300			
Total ..	4,137	4,654	3,532	21,292	7,282	607	..	41,504

## YIELD PER ACRE (BUSHEL)(b)

Average for three years ended—								
1938-39 ..	15.2	15.7	13.5	17.4	12.5	31.5	52.3	16.7
1948-49 ..	13.7	19.0	20.8	20.4	11.5	27.7	19.5	19.3
1958-59 ..	20.0	20.3	25.4	23.7	13.1	33.4	..	20.7
Year—								
1957-58 ..	10.0	15.5	17.1	14.5	11.6	32.2	..	14.4
1958-59 ..	27.6	23.6	32.6	28.3	16.8	31.6	..	26.5
1959-60 ..	21.8	20.1	25.6	9.2	16.8	33.8	..	14.3
1960-61 ..	25.3	25.0	20.0	27.1	15.7	22.5	..	24.0
1961-62—								
2-row ..	20.3	20.8	20.0	16.9	16.6	32.4	..	17.4
6-row ..	21.1	18.3	19.8	13.6	14.6			
Total ..	20.6	20.6	20.0	16.8	14.8	32.4	..	17.4

(a) Less than 500 acres.

(b) 50 lb. per bushel.

(c) Less than 500 bushels.

For Australia (excluding Tasmania), 75 per cent. of the area of barley for grain in 1961-62 was sown with 2-row barley, while the remainder consisted of 6-row varieties. The proportion, however, varied considerably in the several States. The utilization of barley during the season ended November, 1962, was as follows:—exports, 18,491,000 bushels; malting and distilling, 10,301,000 bushels; pearl barley, 143,000 bushels; seed and stock feed, 8,853,000 bushels.

The following table sets out the acreage and production of 2- and 6-row barley in Australia during the seasons 1957-58 to 1961-62 and the averages for the three years ended 1938-39, 1948-49 and 1958-59.



## BARLEY, 2- AND 6-ROW: AREA AND PRODUCTION, AUSTRALIA

Period	Area ( <sup>'000</sup> acres)			Production ( <sup>'000</sup> bushels)(a)			Yield per acre (bushels)(a)		
	2-row	6-row	Total	2-row	6-row	Total	2-row	6-row	Total
Average for three years ended—									
1938-39 ..	523	90	613	8,963	1,271	10,234	17.1	14.1	16.7
1948-49 ..	769	97	866	15,142	1,604	16,746	19.7	16.5	19.3
1958-59 ..	1,809	389	2,198	41,633	5,941	47,574	23.0	15.3	20.7
Year—									
1957-58 ..	1,758	363	2,121	26,404	4,062	30,466	15.0	11.2	14.4
1958-59 ..	1,965	416	2,381	54,624	8,352	62,976	27.8	20.1	26.5
1959-60 ..	(b)1,868	(b)499	2,379	b 25,676	(b)8,085	34,179	(b)13.7	(b)16.2	14.3
1960-61 ..	(b)2,157	(b)658	2,830	b 55,691	b 11,935	67,970	(b)25.8	(b)18.1	24.0
1961-62 ..	(b)1,777	(b)587	2,383	b 31,739	(b)9,158	41,504	(b)16.1	(b)15.6	17.4

(a) 50 lb. per bushel.

(b) Excludes Tasmania.

A graph showing the production of barley in Australia since 1935-36 appears on page 995.

(v) *Prices.* The average wholesale price for 2-row English malting barley in the Melbourne market during 1961-62 was 14s. 9d. compared with 14s. 11d. in 1960-61.

(vi) *Value of Barley Crop.* The estimated gross value of the barley crop in each State for the 1961-62 season and the value per acre are shown in the following table.

## BARLEY FOR GRAIN: VALUE OF CROP, 1961-62

Particulars		N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Aggregate value ..	£'000	2,428	2,450	1,797	11,476	3,415	289	21,855
Value per acre ..	£	12.1	10.9	10.2	9.0	6.9	15.4	9.2

(vii) *Exports.* Exports of barley during the five years ended 1961-62 averaged 27,907,000 bushels. South Australia was the principal exporting State, while the United Kingdom, Federal Republic of Germany, Republic of China (Mainland), the Netherlands and the United States of America were the principal countries to which barley was shipped. Particulars of exports of Australian produced barley for the years 1957-58 to 1961-62 are shown in the following table.

## BARLEY: EXPORTS, AUSTRALIA

Particulars		1957-58	1958-59	1959-60	1960-61	1961-62
Quantity ..	'000 bus.	19,265	29,924	25,013	33,900	31,435
Value ..	£A.'000 f.o.b.	9,474	16,898	11,541	14,329	14,954

Imports of barley into Australia are not recorded separately.

In addition to exports of barley grain, there are also exports of Australian pearl and Scotch barley, the total for 1961-62 amounting to 1,349,728 lb., valued at £23,469, consigned mainly to the United Kingdom.

(viii) *Malt.* (a) *Production.* Details of the quantity of grain used and the production of barley malt in the years 1957-58 to 1961-62 are given in the following table.

## BARLEY MALT: GRAIN USED AND MALT PRODUCED, AUSTRALIA

Particulars		1957-58	1958-59	1959-60	1960-61	1961-62
Grain used ..	'000 bus.(a)	8,508	8,198	8,539	9,020	10,312
Malt produced..	'000 bus.(b)	8,197	8,108	8,435	9,015	10,207

(a) 50 lb. per bushel.

(b) 40 lb. per bushel.

(b) *Exports.* Since 1952-53, the production of malt in Australia has been sufficient to meet local requirements and to provide a margin for export. Exports of Australian produce amounting to 2,055,445 bushels (value £1,985,109) and 2,871,668 bushels (value £2,712,157) were recorded in 1960-61 and 1961-62 respectively.

(ix) *World Production.* In comparison with the barley production of other countries, that of Australia is extremely small. The main producers in 1961 were the United States of America, France, and the United Kingdom. China is also normally a major producer, but details for 1961 are not available. Australian production in that year was approximately two per cent. of the world total.

According to estimates made by the United States Department of Agriculture, world production of barley in the year 1961 amounted to 3,410 million bushels harvested from 141.2 million acres, equivalent to a yield per acre of 25.1 bushels. This compared with the production of 3,560 million bushels in the previous year from 142.0 million acres, and a yield per acre of 25.1 bushels.

4. *Sorghum for Grain.*—Grain sorghum is similar to maize in that it is a perennial and summer grower, and is drought-resistant and palatable to stock. It requires a summer rainfall. The growing of this crop for grain on an extensive scale is a comparatively recent development in Australia and, as with other cereals, operations are highly mechanized.

The climatic conditions of Queensland and northern New South Wales are particularly suited to the growing of sorghum, and so far development has been restricted mainly to these areas, more particularly to Queensland. The grain produced is fed to livestock and has become an important source for supplementing other coarse grains for the feeding of live-stock. Other sorghums are grown in Australia mainly as green fodder, hay and silage (sweet sorghums and Sudan grass) and for the production of brush for broom manufacture (broom millet).

In Queensland, the growing of grain sorghum is concentrated in the Burnett, Dawson-Callide areas and in the central highlands. In New South Wales, the north western slopes and Murrumbidgee Irrigation Area are the main areas. This crop is also suitable for the semi-tropical areas of Northern Territory and the Kimberleys.

Particulars of the area and production of sorghum grown for grain in recent years are given in the following table.

GRAIN SORGHUM: AREA, PRODUCTION AND YIELD PER ACRE

Season	Area			Production(a)			Yield per acre(a)		
	N.S.W.	Q'land	Aust. (b)	N.S.W.	Q'land	Aust. (b)	N.S.W.	Q'land	Aust. (b)
	Acres	Acres	Acres	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels
1957-58 ..	47,017	166,979	214,442	521,325	3,885,567	4,407,500	11.1	23.3	20.6
1958-59 ..	41,899	210,371	252,419	943,359	6,365,880	7,309,645	22.5	30.3	29.0
1959-60 ..	51,195	220,094	271,553	1,451,967	6,630,369	8,086,405	28.4	30.1	29.8
1960-61 ..	41,145	213,761	255,109	577,473	5,417,571	5,996,101	14.0	25.3	23.5
1961-62 ..	70,134	292,397	362,666	1,307,508	8,053,590	9,361,244	18.6	27.5	25.8

(a) 60 lb. per bushel.

(b) Includes small areas sown and quantities produced in other States.

5. *Maize for Grain.*—(i) *General.* Like sorghum, maize is a summer cereal demanding specific soil and climatic conditions. It is grown for grain chiefly in the south-east and Atherton Tablelands of Queensland and the north coast and northern tablelands of New South Wales. The area so cropped in these States during 1961-62 season was 98 per cent. of the total for Australia. On the Atherton Tablelands in Queensland, and generally in New South Wales and Victoria, it provides a stock feed for dairy cattle, fat stock and pigs. In times of drought, it is also used as a sheep feed. In all States, except South Australia, however, this crop is grown to some extent for green fodder and silage, particularly in connexion with the dairying industry. There is practically no difference between grain and fodder varieties.

There has been a considerable increase in recent years in the growing of maize from hybrid strains of seed. Varieties have been developed which are capable of producing yields per acre considerably in excess of the older open pollinated types. The expansion in areas sown to hybrid maize has led to a parallel development in the specialized industry of growing hybrid strains for seed.

(ii) *Area, Production and Yield per Acre.* The area, production and yield per acre of maize for grain in each State for the years 1957-58 to 1961-62 compared with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are given in the following table. Separate details for hybrid and other varieties are shown for New South Wales, Victoria and Queensland for 1961-62.

## MAIZE FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA (ACRES)								
Average for three years ended—								
1938-39 ..	121,178	19,826	179,641	20	16	..	6	320,687
1948-49 ..	91,612	7,511	122,263	1	87	6	1	221,481
1958-59 ..	57,662	3,629	120,417	(a)	13	1	2	(b)181,724
Year—								
1957-58 ..	57,513	4,278	122,245	(a)	20	..	6	(b)184,062
1958-59 ..	62,249	3,881	113,402	(a)	10	..	..	(b)179,542
1959-60 ..	51,738	3,383	129,803	(a)	4	..	..	(b)184,928
1960-61 ..	49,269	2,985	132,382	(a)	6	..	..	(b)184,642
1961-62—								
Hybrid ..	41,069	2,999	110,439	}	17	..	..	210,540
Other ..	10,365	310	45,341		..	..	..	..
Total ..	51,434	3,309	155,780	..	17	..	..	210,540

PRODUCTION ('000 BUSHEL)(c)								
Average for three years ended—								
1938-39 ..	3,204	665	3,170	1	(d)	..	(d)	7,040
1948-49 ..	2,446	314	2,960	(d)	1	(d)	(d)	5,721
1958-59 ..	2,347	175	3,428	(a)	(d)	(d)	(d)	(b) 5,950
Year—								
1957-58 ..	2,237	241	3,161	(a)	(d)	..	(d)	(b) 5,639
1958-59 ..	2,860	203	3,654	(a)	(d)	..	..	(b) 6,717
1959-60 ..	2,485	180	4,060	(a)	(d)	..	..	(b) 6,725
1960-61 ..	2,227	171	3,847	(a)	(d)	..	..	(b) 6,245
1961-62—								
Hybrid ..	1,979	182	3,560	}	(d)	..	..	7,307
Other ..	370	10	1,206		..	..	..	..
Total ..	2,349	192	4,766	..	(d)	..	..	7,307

YIELD PER ACRE (BUSHEL)(c)								
Average for three years ended—								
1938-39 ..	26.4	33.5	17.6	43.7	12.3	..	10.2	22.0
1948-49 ..	26.7	41.8	24.2	6.7	7.2	14.8	13.7	25.8
1958-59 ..	40.7	48.2	28.5	(a)	16.8	30.0	..	(b) 32.7
Year—								
1957-58 ..	38.9	56.5	25.9	(a)	14.9	..	..	(b) 30.6
1958-59 ..	45.9	52.4	32.2	(a)	25.5	..	..	(b) 37.4
1959-60 ..	48.0	53.3	31.3	(a)	25.5	..	..	(b) 36.4
1960-61 ..	45.2	57.3	29.1	(a)	1.0	..	..	(b) 33.8
1961-62—								
Hybrid ..	48.2	60.6	32.2	}	21.9	..	..	34.7
Other ..	35.7	32.4	26.6		..	..	..	..
Total ..	45.7	58.0	30.6	..	21.9	..	..	34.7

(a) Not available for publication. (b) Incomplete. See footnotes to individual States.  
(c) 56 lb. per bushel. (d) Less than 500 bushels.

The average yield for Australia for the five-year period ended 1961-62 was 34.6 bushels per acre. Among principal producing countries during 1961, the United States of America averaged 61.8 bushels per acre and Italy 47.0 bushels.

(iii) *Price of Maize.* The average wholesale price of maize in the Melbourne market in 1961-62 was 18s. 1½d. a bushel compared with 20s. 4½d. in 1960-61.

(iv) *Value of Crop.* The estimated gross value of the crop in each State for the 1961-62 season and the value per acre were as follows.

## MAIZE FOR GRAIN: VALUE OF CROP, 1961-62

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Aggregate value .. £'000	1,830	124	3,330	..	1	..	5,285
Value per acre .. £	35.6	37.5	21.4	..	33.8	..	25.1

(v) *Exports of Maize and Maize Products.* Details of exports of Australian-produced maize for the five years ended 1961-62 are shown on the next page.

## MAIZE: EXPORTS, AUSTRALIA

Particulars				1957-58	1958-59	1959-60	1960-61	1961-62
Quantity	..	..	.. '000 bus.	48	15	22	3	2
Value..	..	..	£A.'000 f.o.b.	30	10	15	4	3

Imports of maize into Australia are not recorded separately.

Exports of cornflour in 1961-62 were 16,100 lb., valued at £1,033, compared with 129,700 lb. valued at £2,652 in 1960-61. These figures include some quantities of "cornflour" made from wheat. Imports of cornflour into Australia are not recorded separately.

(vi) *World Production.* According to figures issued by the United States Department of Agriculture, world production of maize in the year 1961 amounted to 7,430 million bushels, harvested from 240 million acres, giving an average yield per acre of 31.0 bushels. This compared with production in the previous year of 7,595 million bushels from 244 million acres, and an average of 31.1 bushels per acre.

The United States of America is the most important maize-producing country in the world, and during the three years ended 1961 the area sown to maize in that country averaged 67 million acres or 28 per cent. of the world total. During the same period, production averaged 3,785 million bushels or about 51 per cent. of the world total.

6. Rice.—(i) *General.* The principal rice-growing areas of the world are confined almost entirely to Asia, although limited quantities are grown in other countries. In Australia, rice was first cultivated at the Yanco Experimental Farm in New South Wales, but it was not grown commercially until 1924-25, when 16,240 bushels were produced from 153 acres. Favoured by high average yields and protected by tariff, rice culture made rapid progress in the Murrumbidgee Irrigation Area until local requirements were met and a surplus became available for export. The acreage sown in this area is controlled, as the quantity of water available is limited.

Until recent years, rice-growing in Australia was practically confined to the Murrumbidgee Irrigation Area in New South Wales. However, there is now some experimental rice-growing in Western Australia and the Northern Territory, but particulars are not available for publication. Small quantities have also been produced in Queensland in some years.

(ii) *Area, Production and Exports.* Details relating to area, production, and Australian-produced exports for the years 1957-58 to 1961-62 are shown in the following table.

## RICE: AREA, PRODUCTION AND EXPORTS, AUSTRALIA(a)

Season	No. of holdings growing rice(b)	Area	Production (paddy rice)		Average yield (paddy) per acre	Exports(c)	
			Quantity	Gross value(d)		Un-cleaned	Cleaned
		Acres	'000 bushels (e)	£'000	Bushels (e)	Cwt.	Cwt.
1957-58 ..	743	46,774	5,658	4,045	121.0	211,315	418,372
1958-59 ..	775	47,054	6,619	4,731	140.7	182,583	704,360
1959-60 ..	848	48,950	6,732	4,450	137.5	265,449	1,055,821
1960-61 ..	787	46,117	6,001	4,125	130.1	359,441	876,175
1961-62 ..	875	50,185	7,045	3,832	140.4	280,540	748,920

(a) Particulars of area and production for Western Australia and Northern Territory are not available for publication, and are excluded. (b) Twenty acres or more in area. (c) Imports into Australia are not recorded separately. (d) Excludes the value of straw. (e) 42 lb. per bushel.

The bulk of Australia's exports of rice in 1961-62 was shipped to Papua and New Guinea, the Pacific Islands and the United Kingdom.

## § 4. Fodder Crops

1. Hay.—(i) *General.* Because of the comparatively unreliable nature of rainfall in Australian agricultural and pastoral areas, hay as a fodder crop occupies a position of importance. In 1961–62, hay represented 8 per cent. of the total area of crops.

Up to 1946–47, hay, in terms of area, was second only to wheat for grain, but in more recent years it has been supplanted by green fodder (for feeding-off), oats for grain and barley for grain.

Hay is generally considered to include cereal hay, meadow hay and lucerne hay. Cereal crops cut early for hay contain a higher level of protein than those cut late.

In most European countries, hay is made almost entirely from meadow pastures, but in Australia a very large proportion is made from cereals and lucerne, the hay being stored loose, in sheaves or baled. Because of its bulk, hay is usually produced for individual or local use, except in times of drought, when large inter-regional transfers may take place.

Meadow hay requires greater care in preparation than cereal hay. Baling must be spaced carefully behind mowing to ensure that the bales are dry enough to prevent moulding, but not so dry as to result in excessive leaf loss. The leaves contain the bulk of the protein. Lucerne hay requires similar attention.

(ii) *Area and Production.* For a number of reasons, particularly the variations in the relative prices of grain and hay and whether the season is favourable or not for a grain crop, the area of hay is apt to fluctuate considerably. The area, production and yield per acre of hay of all kinds in the several States during the years 1957–58 to 1961–62 and the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59 are shown below.

## HAY: AREA, PRODUCTION AND YIELD PER ACRE

Season	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust. (a)
AREA ('000 ACRES)								
Average for three years ended—								
1938–39 ..	859	1,122	67	540	439	81	3	3,111
1948–49 ..	516	642	66	287	245	93	3	1,852
1958–59 ..	556	978	64	336	305	129	4	2,372
Year—								
1957–58 ..	554	871	69	291	339	110	3	2,237
1958–59 ..	747	1,282	78	419	333	154	5	3,018
1959–60 ..	482	848	81	245	319	127	3	2,105
1960–61 ..	750	1,286	84	393	284	171	4	2,973
1961–62 ..	594	922	95	209	294	157	2	2,274
PRODUCTION ('000 TONS)								
Average for three years ended—								
1938–39 ..	975	1,181	94	591	434	120	3	3,398
1948–49 ..	618	987	119	396	275	153	4	2,552
1958–59 ..	752	1,712	129	476	377	248	7	3,701
Year—								
1957–58 ..	535	1,413	122	304	386	205	4	2,969
1958–59 ..	1,183	2,299	169	672	455	302	10	5,090
1959–60 ..	779	1,351	179	207	433	221	7	3,177
1960–61 ..	1,243	2,338	167	616	380	326	8	5,079
1961–62 ..	923	1,585	212	286	396	286	5	3,693
YIELD PER ACRE (TONS)								
Average for three years ended—								
1938–39 ..	1.14	1.05	1.40	1.09	0.99	1.48	1.00	1.09
1948–49 ..	1.20	1.54	1.80	1.38	1.12	1.65	1.33	1.38
1958–59 ..	1.35	1.75	2.02	1.42	1.24	1.92	1.75	1.56
Year—								
1957–58 ..	0.96	1.62	1.77	1.05	1.14	1.86	1.39	1.33
1958–59 ..	1.58	1.79	2.17	1.60	1.37	1.96	1.98	1.69
1959–60 ..	1.62	1.59	2.21	0.84	1.36	1.75	2.15	1.51
1960–61 ..	1.66	1.82	1.98	1.57	1.34	1.91	2.12	1.71
1961–62 ..	1.55	1.72	2.22	1.37	1.35	1.82	2.17	1.62

(a) Includes small amounts grown in the Northern Territory.

A graph showing the area under hay since 1900-01 appears on page 993.

(iii) *Varieties Grown.* Information regarding areas cut for hay in 1961-62 is given in the following table.

**HAY: AREA OF VARIOUS KINDS GROWN, 1961-62**  
(Acres)

State or Territory	Wheaten	Oaten	Lucerne	Other	Total
New South Wales .. ..	90,490	64,786	231,549	207,198	594,023
Victoria .. ..	31,121	172,366	61,241	657,304	922,032
Queensland .. ..	9,542	3,889	74,415	7,512	95,358
South Australia .. ..	33,527	82,664	24,046	68,404	208,641
Western Australia .. ..	40,302	144,399	969	107,879	293,549
Tasmania .. ..	2,365	17,371	899	136,603	157,238
Northern Territory .. ..	..	..	..	422	422
Australian Capital Territory ..	127	302	1,477	536	2,442
<b>Australia .. ..</b>	<b>207,474</b>	<b>485,777</b>	<b>394,596</b>	<b>1,185,858</b>	<b>2,273,705</b>

For all States and the Territories combined, the proportions of the areas sown to the principal kinds of hay in 1961-62 were 21.4 per cent. for oaten, 17.4 per cent. for lucerne, 9.1 per cent. for wheaten, and 52.1 per cent. for other hay.

(iv) *Value of Hay Crop.* The following table shows the estimated gross value, and the value per acre, of the hay crop of the several States for the 1961-62 season.

**HAY: VALUE OF CROP, 1961-62**

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value .. £'000	9,562	15,637	4,188	2,213	3,757	2,341	42	(a)37,746
Value per acre .. £	16.1	17.0	43.9	10.6	12.8	15.0	17.2	16.6

(a) Includes £6,000 in the Northern Territory.

(v) *Farm Stocks of Hay.* Particulars of stocks of hay held on farms at 31st March in each year 1958 to 1962 are given in the table below.

**STOCKS OF HAY HELD ON FARMS**  
(Tons)

31st March—	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
1958 ..	553,691	1,643,876	89,897	384,143	211,069	256,199	3,492	3,142,367
1959 ..	1,463,334	2,464,050	166,657	679,003	290,988	311,825	9,323	5,385,180
1960 ..	1,535,252	1,766,857	203,675	304,227	292,086	255,471	10,778	4,368,346
1961 ..	1,704,486	2,640,249	155,209	648,267	258,859	327,696	12,338	5,747,104
1962 ..	1,775,977	1,847,725	231,335	496,564	254,377	305,108	12,241	4,923,327

(vi) *Exports.* Under normal conditions, hay, whether whole or in the form of chaff, is somewhat bulky for overseas trade, and consequently does not figure largely among Australian exports. During 1961-62, exports amounting to 2,328 tons, valued at £47,571, were made principally to Singapore, the Federation of Malaya, and Hong Kong. There were no imports of hay in 1961-62.

2. *Green Fodder.*—(i) *General.* Considerable areas are devoted to the growing of green fodder, usually as an adjunct to cereal operations or as a minor crop in irrigation areas. The areas recorded in respect of green fodder include areas of crops cut for feeding to live-stock as green fodder or ensilage, together with areas fed off to stock as green forage.

Included with the latter are areas which may have been sown with the intention of harvesting for grain, but which, owing to adverse conditions, showed no promise of producing grain or even hay and were fed off to live-stock. The principal crops cut for green fodder are oats, wheat and lucerne, while small quantities of barley, sorghum, maize, rye and sugar cane are also used in this way. In 1961-62, the area under green fodder (4,701,588 acres) consisted of oats (1,938,562 acres), lucerne (1,789,774 acres), wheat (238,640 acres), barley (152,410 acres), sorghum (142,501 acres), maize (40,862 acres), rye (21,648 acres), sugar cane (1,347 acres) and other crops (375,844 acres). Particulars concerning the area of green fodder in the several States during each of the years 1957-58 to 1961-62 are given in the following table.

**GREEN FODDER: AREA**  
(Acres)

Season	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1957-58 ..	993,039	465,009	714,048	748,089	770,739	54,094	4	1,032	3,746,054
1958-59 ..	1,238,314	319,150	638,667	550,366	769,199	61,322	273	667	3,577,958
1959-60 ..	1,578,759	422,237	725,155	595,713	708,793	62,229	240	968	4,094,094
1960-61 ..	1,691,408	430,920	874,702	743,538	606,039	59,563	144	1,247	4,407,561
1961-62 ..	1,829,867	539,020	864,461	787,388	622,067	57,000	588	1,197	4,701,588

In the 1961-62 season, green fodder ranked second to wheat in area of crops throughout Australia. A graph showing the area sown to green fodder appears on page 993.

(ii) *Value of Green Fodder Crops.* The value of these crops is variously estimated in the several States, but the Australian total, excluding Western Australia, may be taken as approximately £9,600,000 for the 1960-61 season and £8,700,000 for the 1961-62 season.

3. *Ensilage.*—(i) *General.* Ensilage is produced from herbage compacted tightly to exclude air and kept from contact with air and extraneous moisture to avoid moulding. Fermentation results in a dark mass of high protein and lactic acid content. Molasses may be added to hasten fermentation. Ensilage may be stored in pits or stacks or in constructed silos. In recent years, there has been an increasing tendency to produce more ensilage.

(ii) *Government Assistance.* The several State Governments devote a considerable amount of attention to the education of the farming community with regard to the value of ensilage. Monetary aid is afforded in the erection of silos, and expert advice is supplied in connexion with the design of the silos and the cutting and packing of the ensilage.

(iii) *Production and Stocks.* Information regarding production and farm stocks of ensilage for the years ended 31st March, 1958 to 1962, is given in the following table.

**ENSILAGE: PRODUCTION AND FARM STOCKS**  
(Tons)

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Total
<b>Production during—</b>								
1957-58 season ..	91,486	194,850	41,367	23,230	27,988	52,125	58	431,104
1958-59 " ..	243,990	301,839	73,365	68,988	76,997	63,974	410	829,563
1959-60 " ..	202,821	281,566	60,129	19,744	73,265	46,933	90	684,548
1960-61 " ..	256,459	303,198	51,198	100,727	50,911	72,344	80	834,917
1961-62 " ..	196,625	261,884	73,838	52,451	51,364	77,781	700	714,643
<b>Farm stocks, as at—</b>								
31st March, 1958 ..	134,895	n.a.	77,972	20,605	16,501	52,263	205	n.a.
" " 1959 ..	333,178	254,695	126,693	50,170	53,549	62,758	435	881,478
" " 1960 ..	404,777	201,584	136,317	21,773	51,807	50,671	330	867,259
" " 1961 ..	499,244	231,315	117,749	79,269	43,518	46,570	80	1,017,745
" " 1962 ..	567,801	181,383	139,788	68,614	37,224	60,157	1,305	1,056,272

## § 5. Industrial Crops

1. **Sugar Cane.**—(i) *General.* The growing of sugar cane is restricted to those coastal areas in northern New South Wales and Queensland which have suitable climatic and soil conditions. Considerable areas in more southern coastal districts of New South Wales previously devoted to this crop are now used for dairying owing to the uncertainty of rainfall.

The Bureau of Sugar Experiment Stations in Queensland renders useful service to the sugar industry by advocating and demonstrating better methods of cultivation and the more scientific use of fertilizers, lime, etc., and by producing and distributing improved varieties of cane.

(ii) *Sugar Agreements and Marketing Arrangements.* (a) *In Australia.* Reference was made in Official Year Book No. 37, pages 940–1, to the agreement operating between the Commonwealth and Queensland Governments in respect of the sugar industry in Australia. Briefly, the agreement places an embargo on sugar importations and fixes the price of sugar consumed in Australia. The current agreement is for the period from 1st September, 1961 to 31st August, 1967. The Commonwealth Government appointed a Committee of Enquiry in 1960 to investigate all facets of the sugar and canned fruits industries. The Committee presented its report, publication of which was restricted to a summary of conclusions and recommendations, towards the end of 1961. There was no variation of the consequent Agreement.

Production is regulated by the limited export quotas allocated under the International Sugar Agreement (*see (b) below*). At the mill level, this is established by means of mill peaks. The central collecting system used considerably assists in controlling the industry.

The Queensland Government acquires the whole of the sugar production of that State and of New South Wales by legislation and private agreement respectively. The net proceeds of all sugar sold are pooled and a uniform price paid to mills.

(b) *International Sugar Agreement.* The International Sugar Agreement of 1937 was superseded by the International Sugar Agreements of 1953 and 1958. Details of the 1937 and 1953 Agreements were given in Official Year Books No. 40, pages 881–2, and No. 43, page 936, respectively.

The 1958 Agreement, which came into operation on 1st January, 1959, establishes basic export quotas for exporting countries. The British Commonwealth is allocated a total quota, the distribution of which remains a matter for internal arrangement by the countries and territories concerned (*see (c) below*). The Australian quota for 1960 and 1961 was approximately 651,000 tons.

The quota and price provisions of the International Sugar Agreement cover only the first three years to 31st December, 1961. A conference in Geneva in 1961 failed to reach agreement on quota provisions for 1962 and 1963. The conference adjourned with a resolution that it be reconvened if circumstances became favourable for an agreement on quotas. In any event, consideration is to be given in the second half of 1963 to convening an international conference to prepare a new agreement in place of the current agreement which expires at the end of 1963.

The principal practical effect of the adjournment of the 1961 conference is that former export limitations on participating exporting countries, including Australia, do not apply until such time as agreement on this question is again reached at a resumed session of that conference, or at a newly convened conference.

(c) *British Commonwealth Sugar Agreement.* On 1st January, 1953, the British Commonwealth Sugar Agreement became effective. This agreement, which has been extended to 1969, provides for Australia to export a maximum of 600,000 tons per annum, subject to annual review. Of the 600,000 tons, 315,000 tons are purchased by the United Kingdom Government at an annually negotiated price and the balance is sold at world market prices plus tariff preferences where applicable. The negotiated prices for 1961 and 1962 were £stg.45 2s. and £stg.45 15s. 3d. In 1960 and 1961, Australia had an additional quota of 51,000 tons as its share of the increased allocation to Commonwealth exporters under the current International Sugar Agreement. This tonnage was not to receive the benefit of tariff preferences. Export limitations under the International Sugar Agreement are not applicable to 1962 and 1963 (*see para. (ii) (b), above*).



(iii) *Fruit Industry Sugar Concession Committee and Sugar Rebates.* The Fruit Industry Sugar Concession Committee was established by agreement between the Commonwealth and Queensland Governments and administers a fund contributed by the Queensland Government on behalf of the sugar industry.

Until 15th May, 1960, a rebate of £2 4s. per ton of refined sugar used in processing approved fruit products was paid to Australian manufacturers, provided they bought the fresh fruit at prices not lower than those declared by the Committee as reasonable. This was increased to £5 per ton from 16th May, 1960.

An export sugar rebate is also paid by the Committee to exporters of approved fruit products to ensure that manufacturers do not pay higher prices for Australian sugar than the price for which the cheapest imported sugar could be landed duty free in Australia.

Under the Sugar Agreement for 1961-67, the Queensland Government contributes to the fund £264,000 annually and also reimburses the Committee for the actual expenditure on export sugar rebates. Any money remaining in the fund after the payment of rebates and administrative expenses may be used by the Committee for the promotion of the use and sale of fruit products, or for scientific research for the purpose of increasing the yield per acre of Australian fruit.

(iv) *Bulk Handling of Sugar.* The conversion of the Australian sugar industry to bulk handling and mechanized loading and unloading of raw sugar is well advanced. About 92 per cent. of raw sugar in Australia is now handled in bulk without being bagged at any stage.

Terminals for the bulk loading of sugar were opened at Mackay in 1957, at Lucinda and Bundaberg in 1958, at Townsville in 1959, and at Mourilyan in 1960. Work is in progress for the erection of a terminal at Cairns and the provision of additional storage capacity at Mackay.

Bulk receiving facilities are in operation at all Australian refineries.

(v) *Area.* A brief outline of the development of the industry was included in earlier issues of the Official Year Book (see No. 38, p. 985). The area of sugar cane in Australia for the seasons 1957-58 to 1961-62 and the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown in the following table.

#### SUGAR CANE: AREA(a)

(Acres)

Season	New South Wales			Queensland			Australia			Total
	Area crushed	Area of stand-over and newly-planted cane	Area cut for plants	Area crushed	Area of stand-over and newly-planted cane	Area cut for plants	Area crushed	Area of stand-over and newly-planted cane	Area cut for plants	
Average for three years ended—										
1938-39	10,468	10,366	(b)	247,632	89,690	(b)	258,100	100,056	(b)	(b)
1948-49	7,687	8,666	338	230,905	90,448	12,891	238,592	99,114	13,229	350,935
1958-59	11,094	9,462	619	360,709	110,786	12,596	371,803	120,248	13,215	505,266
Year—										
1957-58	10,734	9,241	720	364,985	107,424	12,946	375,719	116,665	13,666	506,050
1958-59	13,368	9,727	616	356,210	118,200	12,391	369,578	127,927	13,007	510,512
1959-60	14,248	10,510	392	299,732	151,114	11,039	313,980	161,624	11,431	487,035
1960-61	13,657	11,385	568	327,246	110,704	11,574	340,903	122,089	12,142	475,134
1961-62	14,655	11,299	482	372,223	87,831	12,339	386,878	99,130	12,821	498,829

(a) Excludes areas cut for green fodder.

(b) Not available.

The areas shown in the preceding table do not include the small acreage cut for green fodder, which in 1961-62 amounted to 1,347 acres. The whole area planted is not cut for crushing during any one season, there being always a considerable amount of young and "stand-over" cane as well as a small quantity required for plants.

(vi) *Production of Cane and Sugar.* In recent years, production of sugar cane has generally fluctuated between nine and nine and a half million tons, although in 1958-59 production reached the record level of 10.2 million tons. A graph showing the production of raw sugar since 1935-36 appears on page 995.

In the following table, production data relating to cane and raw sugar are shown for the seasons 1957-58 to 1961-62 and averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

### SUGAR CANE: PRODUCTION OF CANE AND RAW SUGAR

(Tons)

Season	New South Wales		Queensland		Australia	
	Cane	Sugar(a)	Cane	Sugar(a)	Cane	Sugar(a)
Average for three years ended—						
1938-39 .. ..	324,531	43,419	5,215,217	760,994	5,539,748	804,413
1948-49 .. ..	283,613	35,444	4,767,291	700,053	5,050,904	735,497
1958-59 .. ..	356,324	43,881	9,221,497	1,260,564	9,577,821	1,304,445
Year—						
1957-58 .. ..	303,086	36,854	8,945,617	1,256,271	9,248,703	1,293,125
1958-59 .. ..	471,798	58,870	9,740,795	1,353,543	10,212,593	1,412,413
1959-60 .. ..	574,527	70,677	8,427,731	1,217,803	9,002,258	1,288,480
1960-61 .. ..	480,147	62,978	8,685,426	1,319,633	9,165,573	1,382,611
1961-62 .. ..	555,858	67,448	9,020,734	1,315,393	9,576,592	1,382,841

(a) Raw sugar at 94 net titre.

(vii) *Average Production of Cane Sugar.* Owing to climatic variations, the crop in New South Wales matures in from 20 to 24 months, whereas in Queensland a period of from 12 to 16 months is sufficient. The average yields of cane and sugar per acre for the years 1957-58 to 1961-62 and for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown below. Allowance should be made in interpreting these figures for the disparity in maturing periods noted above.

### SUGAR CANE AND SUGAR: YIELD PER ACRE

(Tons)

Season	New South Wales			Queensland			Australia		
	Cane per acre crushed	Sugar per acre crushed	Cane to each ton of sugar	Cane per acre crushed	Sugar per acre crushed	Cane to each ton of sugar	Cane per acre crushed	Sugar per acre crushed	Cane to each ton of sugar
Average for three years ended—									
1938-39 .. ..	31.00	4.15	7.47	21.06	3.07	6.85	21.46	3.12	6.89
1948-49 .. ..	36.90	4.61	8.00	20.65	3.03	6.81	21.17	3.08	6.87
1958-59 .. ..	32.12	3.96	8.12	25.57	3.49	7.32	25.76	3.52	7.34
Year—									
1957-58 .. ..	28.24	3.43	8.22	24.51	3.44	7.12	24.62	3.44	7.15
1958-59 .. ..	35.29	4.40	8.01	27.35	3.80	7.20	27.63	3.82	7.23
1959-60 .. ..	40.32	4.96	8.13	28.12	4.06	6.92	28.67	4.10	6.99
1960-61 .. ..	35.16	4.61	7.62	26.54	4.03	6.58	26.89	4.06	6.63
1961-62 .. ..	37.93	4.60	8.24	24.23	3.53	6.86	24.75	3.57	6.93

(viii) *Production and Utilization.* Details of the production and utilization of sugar for the years 1957-58 to 1961-62 are shown below. Consumption is shown in terms of refined sugar, including that consumed in manufactured products.

### SUGAR: PRODUCTION AND UTILIZATION, AUSTRALIA

Year	Changes in stocks	Pro-duction (raw)	Exports (a)	Miscel-laneous uses(b)	Consumption in Australia(a)	
					Total	Per head
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	lb.
1957-58 .. ..	-21.1	1,222.2	733.8	29.4	480.1	110.4
1958-59 .. ..	+10.3	1,353.4	827.4	18.4	497.3	112.0
1959-60 .. ..	+25.6	1,270.6	725.2	18.6	501.2	110.4
1960-61 .. ..	-10.7	1,324.8	815.6	21.0	498.9	107.5
1961-62 .. ..	-4.5	1,404.2	862.6	20.0	526.1	111.1

(a) Includes sugar content of manufactured products exported. quantities used in golden syrup and treacle.

(b) Includes refining, losses and

(ix) *Consumption in Factories.* The quantity of refined sugar used in factories in 1961-62 amounted to 321,125 tons compared with 307,000 tons in 1960-61 and 293,822 tons in 1959-60. Particulars of sugar used in establishments not classified as factories are not available, and consequently these quantities are deficient to that extent. In 1961-62, consumption by factories engaged in the production of jams, jellies and preserved fruit amounted to 103,346 tons, by those producing confectionery, ice cream, etc., to 64,295 tons, by breweries to 44,051 tons, and by factories producing aerated waters, cordials, etc., to 45,984 tons.

(x) *Sugar By-products.* Large quantities of molasses are produced as a by-product in sugar mills. Other by-products include industrial chemicals and building boards. These boards are made from the residue of crushed fibre after removal of the sugar content from sugar cane, and possess high insulating and sound-absorbing properties which make them particularly suitable for use in walls and ceilings.

(xi) *Sugar Prices and Returns.* The prices of sugar in Australia, from 1957 to 1961 in the case of raw sugar, and from 1956 to 1962 in the case of refined sugar (as determined under the Sugar Agreement in Australia—see para. ii (a) above), are shown in the following table.

### SUGAR: PRICES IN AUSTRALIA

Year	Raw sugar, 94 net titre			Refined sugar		
	Average return per ton received by millers and growers for—			Date of determination	Wholesale price to retailer per ton	Retail price, capital cities per lb.
	Home consumption	Exports(a)	Whole crop (a)			
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	d.
1957 ..	54 3 0	45 16 8	49 7 6	14.5.56 to 15.5.60	82 1 0	10
1958 ..	54 15 0	39 8 2	45 9 11	16.5.60 to 31.12.62	90 5 2	11
1959 ..	56 8 6	40 6 2	47 9 11			
1960 ..	62 10 6	39 19 6	49 2 1			
1961 ..	62 9 6	37 15 0	48 4 4			

(a) Includes "excess" sugar.

Details of the disposal of the crop, net value of exports and the average price realized during each of the years 1957-58 to 1961-62 are shown in the following table.

### RAW SUGAR(a): NET RETURNS, AUSTRALIA

(Source: The Queensland Sugar Board.)

Year	Proportion exported	Net value of exports per ton	Average price per ton for whole crop	Estimated value of crop
	Per cent.	£ s. d.	£ s. d.	£'000
1957-58 .. ..	57.44	45 16 8	49 7 6	63,829
1958-59 .. ..	60.53	39 8 2	45 9 11	64,263
1959-60 .. ..	55.42	40 6 2	47 9 11	61,131
1960-61 .. ..	59.53	39 19 6	49 2 1	67,869
1961-62 .. ..	57.66	37 15 0	48 4 4	66,653

(a) 94 net titre.

The estimated value of the raw sugar produced has been based upon details taken from the audited accounts of the Queensland Sugar Board. The values stated represent the gross receipts from sales in Australia and overseas, less refining costs, freight, administrative charges, etc., and export charges, but including concessions to the fruit industry and other rebates which in 1961-62 amounted to £1,000,000. The value thus obtained represents the net market value of all raw sugar sold, which, less the rebates, is divided between the growers and millers in the approximate proportions of 70 per cent. and 30 per cent. respectively.

(xii) *Exports of Sugar.* Particulars of the exports of Australian-produced cane sugar (raw and refined) for each year from 1957-58 to 1961-62 are as follows.

### SUGAR: EXPORTS, AUSTRALIA

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Quantity .. .. tons	707,805	802,971	701,319	796,496	843,528
Value .. .. £A.'000 f.o.b.	34,996	32,163	26,671	35,071	33,814

2. *Peanuts.*—(i) *General.* Peanuts, or groundnuts, are a sub-tropical legume (and hence summer growers) the pods of which mature beneath the surface of the soil. They thus require well drained, light textured soils. At harvest, the plant is pulled, wind-rowed, field-cured for two to four weeks and then threshed to recover the pods. The main products of the industry are nuts, peanut oil, oil cake and synthetic protein fibre.

The production of peanuts in Australia is confined mainly to Queensland, although small quantities are grown in New South Wales, Western Australia and the Northern Territory.

(ii) *Area and Production.* Details of the area and production of peanuts are given in the table below for the years 1957-58 to 1961-62.

### PEANUTS: AREA AND PRODUCTION

Season	Area (acres)				Production (cwt.)			
	N.S.W.	Q'land	N.T.	Aust.(a)	N.S.W.	Q'land	N.T.	Aust.(a)
1957-58 .. ..	686	34,739	156	35,581	8,014	366,518	302	374,834
1958-59 .. ..	867	59,279	211	60,357	11,623	621,687	2,412	635,722
1959-60 .. ..	837	41,547	388	42,772	10,639	360,314	4,306	375,259
1960-61 .. ..	788	41,659	335	42,782	9,578	446,215	1,215	457,008
1961-62 .. ..	573	33,131	307	34,011	6,003	292,267	1,343	299,613

(a) Excludes Western Australia, for which details are not available for publication.

(iii) *Value, Consumption and Trade.* The gross value of the 1961-62 crop was £1,342,000 which was approximately £750,000 less than in 1960-61. All production is consumed in Australia.

In recent years, considerable quantities of peanut kernels have been imported, chiefly from India, for the extraction of oil. Total supplies available for consumption in Australia in 1961-62 were 576,580 cwt. (shell equivalent), after allowing for a decrease in stocks held by the Peanut Marketing Board of 96,840 cwt. Supplies were made up of 390,280 cwt. from Australian production received into store by the Board and 89,460 cwt. imported.

3. *Hops.*—(i) *General.* Hops are grown from perennial rootstocks over deep, well-drained soils in localities sheltered from the wind. The hop-bearing vine shoots are carried upon wire and coir trellises, from which they are later harvested, principally by hand. The green hops are kiln-dried and bleached with sulphur dioxide fumes, following which the cured hops are pressed into bales.

Hop growing in Australia is confined to the Derwent, Huon and Channel areas of Tasmania and the Ovens and King Valleys in Victoria. A small area is also under hops in Western Australia, near Manjimup, but the details are not available for publication.

(ii) *Production and Imports.* The production of hops in Australia is insufficient to meet local requirements, and additional supplies are imported to meet the needs of the brewing industry. In the following table, details of the production and imports of hops and the quantity of hops used in breweries are shown for each of the years 1957-58 to 1961-62. Exports of hops are not recorded separately, but are negligible.

#### HOPS: PRODUCTION AND DISPOSAL, AUSTRALIA

Year	Production(a)		Imports	Net available supplies (b)	Quantity used in breweries
	Quantity	Gross value			
	Cwt.	£'000	Cwt.	Cwt.	Cwt.
1957-58 .. .. .	32,710	1,137	4,502	37,212	39,370
1958-59 .. .. .	36,499	1,273	8,471	44,970	38,664
1959-60 .. .. .	31,790	1,159	..	31,790	40,357
1960-61 .. .. .	33,099	1,179	991	34,090	40,018
1961-62 .. .. .	32,936	1,242	5,569	38,505	39,000

(a) Excludes production in Western Australia for which details are not available for publication.  
 (b) Disregards movements in stocks.

4. *Flax.*—(i) *Flax for Fibre.* This crop has a winter-growing season in Australia. The whole plant, after harvesting, is retted and scutched at local mills to recover the linen fibre and tow. The seeds may be sold to oil mills and the refuse used for stock feed.

In Victoria and South Australia (until production ceased in 1957-58), production has been directed and controlled by the Flax Commission, which took over the Commonwealth flax undertakings from the Flax Production Committee on 1st November, 1954. In Western Australia, the industry is carried on by a co-operative company.

In November, 1957, the Commonwealth Government approved a three-year extension of bounty assistance to flax producers and decided that the Commonwealth should withdraw from flax fibre production. In accordance with the decision, growing of flax under contract to the Flax Commission was discontinued in 1959, all of the Commonwealth mills ceasing to operate before the end of the year.

One important factor which influenced the Government in making this decision was the view expressed by the defence authorities that the industry no longer has the same defence significance as it had when the Flax Commission was first established.

Details of the area under flax and the production of fibre are given in the following table.

## FLAX FOR FIBRE: AREA AND PRODUCTION

Season					Victoria	S. Aust.	W. Aust.	Australia
AREA (ACRES)								
1957-58	..	..	..	..	5,550	1,410	1,002	7,962
1958-59	..	..	..	..	..	..	2,015	2,015
1959-60	..	..	..	..	..	..	1,307	1,307
1960-61	..	..	..	..	430	..	736	1,166
1961-62	..	..	..	..	323	..	91	414
PRODUCTION (TONS OF FIBRE)								
1957-58	..	..	..	..	9,923	3,077	1,246	14,246
1958-59	..	..	..	..	..	..	3,665	3,665
1959-60	..	..	..	..	..	..	2,723	2,723
1960-61	..	..	..	..	592	..	1,176	1,768
1961-62	..	..	..	..	514	..	183	697

(ii) *Flax for Linseed.* Fibre varieties are uneconomic for seed production, and prior to 1948-49, the growing of flax for linseed oil had not been developed extensively in Australia. Since then, however, action has been taken to develop this industry, the ultimate objective being the production of sufficient linseed to meet Australia's total oil requirements.

The question of assistance to the industry was investigated by the Commonwealth Tariff Board in 1953, and its conclusions are contained in its Report on *Linseed and Linseed Products* dated 23rd October, 1953.

The main producing areas are the Darling Downs in Queensland, the wheatbelt of New South Wales, and the western and north-eastern districts of Victoria.

Details of the area and production of flax for linseed are shown in the following table for the seasons 1957-58 to 1961-62.

## FLAX FOR LINSEED: AREA AND PRODUCTION

Season	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Aust.
AREA (ACRES)						
1957-58..	2,251	4,091	90,255	221	549	97,367
1958-59..	4,622	8,817	22,839	703	244	37,225
1959-60..	11,933	24,850	60,837	1,687	186	99,493
1960-61..	11,823	6,179	75,088	2,115	483	95,688
1961-62..	7,266	17,711	34,390	1,513	1,253	62,133
PRODUCTION (TONS OF LINSEED)						
1957-58..	36	1,149	7,279	49	68	8,581
1958-59..	1,196	2,769	6,510	151	42	10,668
1959-60..	2,922	7,391	16,247	191	48	26,799
1960-61..	1,870	1,013	10,394	218	70	13,565
1961-62..	856	6,093	5,187	275	178	12,589

5. *Cotton.*—(i) *General.* This annual shrub requires a hot climate and inter-row weed control. Lint (long fibres) is extracted from the seed cotton in the ginneries, and is used for yarn. The residue, consisting of linters (short fibres), kernels and hulls (outer seed coat), is treated in oil mills. From linters and kernels are produced such items as short-fibred cotton, cotton-seed oil for human consumption and industrial purposes, and meal cakes for stock feed. The hulls may be used as fuel.

The production of cotton in Australia has, until recently, been restricted mainly to the coastal river valleys of Queensland. In recent years, however, it has been grown experimentally in some other States, namely along the Murray river in New South Wales, Victoria,

and South Australia, at Narrabri in New South Wales, and in the Kimberleys in Western Australia. The first commercial crop grown outside Queensland was harvested at Robinvale in Victoria in the 1960 season. Details of this production are not, however, available for publication.

Cotton spinning and weaving industries are referred to in Chapter VI. Manufacturing Industry.

(ii) *Cotton Bounty.* The *Cotton Bounty Act* of 1951 guaranteed a net average return to cotton-growers of 9½d. per lb. of seed cotton for five years from 1st January, 1951. This Act was amended in 1952 to provide for a guaranteed return of 14d. per lb. of seed cotton for the 1953 crop, and for variation by regulation of the guaranteed return, in succeeding seasons, with a minimum of 9½d. per lb. The Act, as amended in 1952, 1955 and 1957, was extended in 1958 to cover production up to 31st December, 1963. The guaranteed return has remained at 14d. per lb. of seed cotton since the 1953 season.

(iii) *Area and Production.* In the five seasons 1957–58 to 1961–62, the area sown and quantity of unginned cotton produced have increased nearly threefold. The yield per acre in the same period has risen by 16 per cent.

The area under cultivation and the production in Australia for the years 1957–58 to 1961–62 are shown hereunder.

#### COTTON: AREA AND PRODUCTION, AUSTRALIA(a)

Season	Area sown	Production of cotton			Average yield per acre sown	
		Unginned		Ginned(b)	Unginned	Ginned
		Quantity	Gross value			
	Acres	'000 lb.	£'000	'000 lb.	lb.	lb.
1957–58.. ..	10,364	3,390	213	1,345	327	129
1958–59.. ..	10,493	4,004	249	1,492	382	142
1959–60.. ..	20,229	9,463	556	3,592	468	178
1960–61.. ..	37,048	15,544	917	5,540	420	150
1961–62.. ..	28,844	10,948	647	3,830	380	133

(a) Incomplete; excludes Victoria and Western Australia, particulars for which are not available for publication. (b) Source: Queensland Cotton Marketing Board.

(iv) *Consumption of Raw Cotton.* The following table shows details of the availability and actual consumption of raw cotton in Australian factories during each of the five years ended 1961–62.

#### RAW COTTON: PRODUCTION, IMPORTS AND CONSUMPTION, AUSTRALIA ('000 lb.)

Year	Production(a)	Imports	Total	Consumption of raw cotton
1957–58 .. ..	1,345	42,578	43,923	49,054
1958–59 .. ..	1,492	43,984	45,476	47,323
1959–60 .. ..	3,592	41,519	45,111	51,689
1960–61 .. ..	5,540	41,842	47,382	45,432
1961–62 .. ..	3,830	37,735	41,565	44,543

(a) Source: Queensland Cotton Marketing Board.

6. *Tobacco.*—(i) *General.* This summer-growing annual requires a temperate to tropical climate, adequate soil moisture and a frost-free period of approximately five months. These requirements necessarily restrict its growth to particular areas. These include the Mareeba area (northern Queensland), the neighbourhood of Texas (Queensland and New South Wales border), and near Myrtleford (Victoria). Smaller quantities are grown also near Manjimup in Western Australia. The best quality Australian tobaccos are grown in Queensland.

In Australia, flue-curing is the main method of drying used.

(ii) *Marketing.* Between 9th May, 1941, and 24th September, 1948, all leaf was under the direct control of the Australian Tobacco Board, and prices were paid on leaf appraisal. Subsequently, sales have been by open auction through the Tobacco Leaf Marketing Board (Queensland and northern New South Wales) and the Victorian Tobacco Growers Association Ltd. (southern New South Wales and Victoria). The 1961-62 Western Australian crop was also marketed through the Victorian Association.

(iii) *Central Tobacco Advisory Committee.* The Australian Agricultural Council formed the Standing Advisory Committee on Tobacco during 1950. This Committee consisted of representatives of tobacco growers, tobacco manufacturers and the Commonwealth and State governments. Its main functions were to review the industry and make recommendations on its problems.

The Committee was reconstituted by the Agricultural Council during 1952-53. The terms of reference of this committee are given in Official Year Book No. 47, page 935.

In 1955, the Committee formulated a programme for increased research and advisory activities. The capital costs of establishing this programme were estimated at £168,000, of which the Commonwealth Government and tobacco manufacturers each agreed to contribute half. Annual contributions are made to the fund by the Commonwealth and State Governments, tobacco growers and manufacturers. A Tobacco Industry Trust Account was established to receive these contributions. This programme commenced in 1956. During the first six years of the operation of the Trust Account, £1,058,687 was paid by State and Commonwealth departments. The allocation for 1962-63 was £259,290.

A sub-committee on curing was formed in 1960 to investigate new curing methods. A grant of up to £10,000 was made available for initial investigations. In 1961, a Research Sub-Committee was established to review annually scientific programmes and finance in relation to the Tobacco Industry Trust Account and make recommendations to the Central Tobacco Advisory Committee.

(iv) *Other Assistance and Research.* Details of the recommendations by the Tobacco Inquiry Committee and grants periodically approved by the Commonwealth Government up to 30th June, 1953, are given in Official Year Book No. 40, pages 895-6, and in previous issues. In 1962, the Commonwealth Government agreed to make available a further annual grant of £24,000 for additional tobacco extension services by State Departments of Agriculture.

The Commonwealth Scientific and Industrial Research Organization has been investigating many fundamental problems connected with tobacco culture. One of the major achievements of this organization was the development in the mid-1930's of a technique to control blue mould in the seed bed. State Departments of Agriculture are also carrying out investigations over a wide range of problems, being concerned mainly with variety trials, irrigation, disease and pest control, crop rotation and cultural practices. The New South Wales Department of Agriculture has developed a commercial blue mould resistant hybrid.

(v) *Tobacco Factories.* Manufacturers of Australian cigarettes and tobacco are granted a lower rate of duty on imported tobacco leaf, provided it is blended with a prescribed minimum percentage of Australian leaf. These percentages were increased from 3 per cent. for cigarettes and 5 per cent. for tobacco in November, 1946, to 43 per cent. and 40 per cent. respectively from 1st July, 1962. The percentage to apply to both cigarettes and tobacco from 1st July, 1963, is 40 per cent. and from 1st July, 1964, 41.5 per cent. In 1961-62, the quantity of cured leaf used in tobacco factories in Australia amounted to 49.7 million lb., of which 18.1 million lb. was of local origin. The balance was imported, chiefly from the United States of America and Rhodesia.

(vi) *Area and Production.* In 1960-61, the area planted was a record, exceeding the previous highest post-war level, reached in 1959-60, by 49 per cent. The production of dried leaf in 1960-61 was also a record. Both area and production of tobacco in 1961-62 are considerably below 1960-61 levels.

In the following table, particulars of the area and production of tobacco are given by States for each of the seasons 1957-58 to 1961-62, together with averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.



## TOBACCO: AREA AND PRODUCTION

Season	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	Aust.
AREA (ACRES)								
Average for three years ended—								
1938-39 ..	697	4,262	3,842	77	1,055	134	(a)	10,067
1948-49 ..	415	1,046	1,948	..	609	..	..	4,018
1958-59 ..	1,257	3,478	7,479	..	1,295	..	(a)	13,509
Year—								
1957-58 ..	1,193	3,252	7,493	..	1,266	..	..	13,204
1958-59 ..	1,543	4,248	7,916	..	1,444	..	..	15,151
1959-60 ..	2,142	6,424	9,527	..	1,561	..	..	19,654
1960-61 ..	3,408	9,932	14,395	..	1,478	..	..	29,213
1961-62 ..	3,078	9,286	14,069	..	194	..	..	26,627

## PRODUCTION OF DRIED LEAF ('000 lb.)

Average for three years ended—								
1938-39 ..	471	1,603	2,173	17	741	104	(b)	5,109
1948-49 ..	380	670	1,725	..	523	..	..	3,298
1958-59 ..	1,066	3,770	5,563	..	1,016	..	(b)	11,415
Year—								
1957-58 ..	1,235	3,683	5,618	..	1,031	..	..	11,567
1958-59 ..	1,158	4,885	6,729	..	1,198	..	..	13,970
1959-60 ..	1,437	7,401	9,149	..	(c) 1,370	..	..	(c) 19,357
1960-61 ..	3,538	9,728	15,308	..	(d) 1,288	..	..	(d) 29,862
1961-62 ..	3,116	6,515	12,751	..	(e) 196	..	..	(e) 22,578

(a) Less than one-half acre. (b) Less than 500 lb. (c) Includes 289,000 lb. of unsold leaf.  
 (d) Includes 655,000 lb. of unsold leaf. (e) Includes 110,000 lb. of unsold leaf.

(vii) *Oversea Trade.* Imports of tobacco and tobacco manufactures into Australia during 1961-62 were valued at £9.7 million. This included 23.7 million lb. of unmanufactured tobacco valued at £8.1 million. Exports of tobacco and tobacco manufactures, including the re-exports of imported tobacco, during 1961-62 were valued at £563,625.

## § 6. Vegetables for Human Consumption

1. *Area, Production and Trade.*—(i) *General.* Vegetables were initially grown on a large scale near the main cities, where there was ready access to reliable water supplies and to markets. More recently, the expansion of irrigation areas and improvement in transport services have resulted in their production being extended into many other areas. At present, because of the wide diversity of climatic conditions across Australia, supplies for main city markets are drawn from widely different areas, depending upon the times of maturity of the various crops. Apart from potatoes and onions, which are sold in some States through marketing boards, the bulk of vegetable trading takes place at the metropolitan markets of the cities concerned.

(ii) *Area and Production of Fresh Vegetables.* Details of the areas planted and production of individual kinds of vegetables are shown below for the seasons 1959-60 to 1961-62. Certain particulars shown are incomplete in that details for specific vegetables in some States are either not available, or are not available for publication. For further information, see the bulletin *Primary Industries, Part I.—Rural Industries.*

## FRESH VEGETABLES FOR HUMAN CONSUMPTION: AUSTRALIA

Vegetable	1959-60		1960-61		1961-62	
	Area sown	Production	Area sown	Production	Area sown	Production
	Acres	Tons	Acres	Tons	Acres	Tons
Asparagus .. ..	3,450	4,210	3,085	4,329	3,263	5,179
Beans, French and runner	16,714	26,527	17,493	26,774	18,239	30,641
Beans, navy .. ..	2,250	451	2,290	501	1,930	440
Beetroot .. ..	1,866	12,804	1,935	13,825	2,102	14,811
Cabbages and brussels sprouts .. ..	6,088	68,892	5,846	69,953	5,585	58,521
Carrots .. ..	4,817	46,391	4,810	47,887	5,212	51,796
Cauliflowers .. ..	6,892	80,663	6,382	77,002	6,404	72,313
Celery .. ..	504	9,320	637	9,017	679	9,576
Cucumbers .. ..	1,435	5,544	1,462	5,969	1,501	6,507
Lettuces .. ..	4,770	19,418	4,616	19,384	4,636	20,904
Onions .. ..	9,315	56,822	9,110	53,515	9,412	58,323
Parsnips .. ..	1,441	12,185	1,483	13,201	1,491	13,374
Peas, blue .. ..	3,226	2,148	3,365	1,228	3,956	2,830
Peas, green .. ..	45,130	54,309	52,286	50,608	58,399	80,750
Potatoes .. ..	108,404	579,207	91,805	450,793	94,443	525,981
Tomatoes .. ..	15,865	126,165	16,850	140,803	17,305	140,339
Turnips, swede and white	1,886	12,345	1,759	8,701	1,859	12,269
All other .. ..	30,992	..	30,939	..	30,734	..
<b>Total .. ..</b>	<b>265,045</b>	<b>..</b>	<b>256,153</b>	<b>..</b>	<b>267,150</b>	<b>..</b>

(iii) *Processed Vegetables.* Total production of canned vegetables in 1961-62 amounted to 125,366,000 lb., the principal types produced being green peas (including mint-pro peas), 43,237,000 lb.; green beans, 6,593,000 lb.; baked beans (including pork and beans), 19,850,000 lb.; asparagus, 8,790,000 lb.; beetroot, 14,608,000 lb.; and mushrooms, 5,687,000 lb.

The production of dehydrated vegetables during 1961-62 amounted to 947,200 lb., while the production of potato crisps, chips and flakes was 9,853,000 lb.

There has been rapid development in the quick-frozen vegetable industry. Data were collected for the first time in 1957-58, when 13,846,000 lb. of frozen vegetables were produced, made up primarily of 10,131,000 lb. of peas and 2,540,000 lb. of beans. In 1961-62, production had risen to 47,232,000 lb., of which 36,196,000 lb. were peas and 7,147,600 lb. were beans.

(iv) *Consumption of Vegetables.* Details of the estimated consumption of vegetables for a series of years ending 1961-62 are shown in Chapter XXIX. Miscellaneous.

(v) *Imports and Exports of Vegetables (Values in £A. f.o.b.).* The quantity and value of oversea exports of pulse and fresh vegetables during 1961-62 were respectively:—pulse, 6,036 tons, £301,995; onions, 2,369 tons, £108,589; potatoes, 4,122 tons, £159,999; other vegetables, 2,683 tons, £263,384. Imports of pulse amounted to 6,882 tons, valued at £497,205, while imports of fresh vegetables in total were 8,155 tons, valued at £1,022,088.

In 1961-62, exports of vegetables preserved in liquid consisted of:—asparagus, 763,604 lb., £106,120; beans (including baked), 96,470 lb., £8,019; peas, 196,185 lb., £16,143; tomatoes, 104,164 lb., £8,680; other vegetables, 475,332 lb., £52,392.

2. *Potatoes.*—(i) *General.* This crop requires deep friable soils, which in Australia are usually basaltic, alluvial, or swampy in origin. Fertilizer requirements, which are generally high, vary with the type of soil. Potatoes are killed by heavy frost, but require only moderate temperatures for growth. Mechanical planters and diggers are used to a variable extent depending upon a variety of factors including terrain, state of the soil and scale of operations.

Seed certification schemes, which operate in all States except Queensland, provide a supply of seed which is free from viral, fungal and bacterial diseases.

In Australia, potatoes are used almost entirely for human consumption and not for the production of starch or alcohol. They are rarely used as stock feed.

(ii) *Marketing.* Potato marketing boards were established in all States under separate State legislation after Commonwealth control of potato marketing under war-time legislation ceased at the end of 1948. The life of the Queensland Board was not extended when its term ended in 1954, and the New South Wales Board was voted out by growers in 1956. As the Victorian Board does not acquire the State crop, potato marketing is now conducted chiefly on an open marketing system. The boards in South Australia and Western Australia are still in operation.

(iii) *Area, Production, and Yield per Acre.* Victoria possesses particular advantages for the growing of potatoes, as the rainfall is generally satisfactory and the climate is unfavourable to the spread of Irish blight; consequently, the crop is widely grown. The principal areas of that State are the central highlands and the south-western and Gippsland districts. Until 1958-59, Tasmania (where production is mainly in the north-west) came next in order of acreage sown, although production exceeded that of Victoria in some of the war years. Since 1958-59, however, New South Wales, which had previously occupied third position, has supplanted Tasmania as the second most important State in area sown. New South Wales production is chiefly in the tablelands districts.

The area sown, production, and yield per acre of potatoes in each State during the years 1957-58 to 1961-62 and the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown hereunder. A graph showing production since 1935-36 appears on page 996.

#### POTATOES: AREA, PRODUCTION AND YIELD PER ACRE

Season	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AREA (ACRES)									
Average for three years ended—									
1938-39 ..	21,049	40,376	11,551	4,445	4,627	32,044	..	59	114,151
1948-49 ..	20,440	53,862	10,795	6,084	6,753	38,643	..	103	136,680
1958-59 ..	16,589	45,225	12,980	6,035	7,977	19,002	4	94	107,906
Year—									
1957-58 ..	17,326	49,846	14,400	6,260	8,322	21,696	4	92	117,946
1958-59 ..	17,482	46,122	11,614	6,168	7,051	16,186	..	90	104,713
1959-60 ..	19,159	48,506	12,311	5,872	6,964	15,525	(a)	67	b 108,404
1960-61 ..	18,365	38,672	11,992	5,209	6,656	10,875	(a)	36	b 91,805
1961-62 ..	20,209	36,469	14,466	5,316	6,824	11,129	(a)	30	b 94,443
PRODUCTION (TONS)									
Average for three years ended—									
1938-39 ..	52,158	137,583	17,191	20,342	23,678	109,285	..	143	360,380
1948-49 ..	62,701	191,590	26,470	32,149	38,722	148,389	..	598	500,619
1958-59 ..	68,533	245,937	50,989	48,072	50,024	92,367	5	391	556,318
Year—									
1957-58 ..	66,689	251,159	56,468	49,965	49,229	101,500	3	420	575,433
1958-59 ..	84,450	259,346	46,999	50,587	47,103	85,900	..	152	574,537
1959-60 ..	81,908	242,548	51,468	48,923	56,000	98,000	(a)	360	b 579,207
1960-61 ..	85,182	180,819	59,311	40,797	45,500	39,050	(a)	134	b 450,793
1961-62 ..	83,301	196,032	70,675	48,479	55,700	71,560	(a)	234	b 525,981
YIELD PER ACRE (TONS)									
Average for three years ended—									
1938-39 ..	2.48	3.41	1.49	4.58	5.12	3.41	..	2.42	3.16
1948-49 ..	3.07	3.56	2.45	5.28	5.73	3.84	..	5.81	3.66
1958-59 ..	4.13	5.44	3.93	7.97	6.27	4.86	1.25	4.16	5.16
Year—									
1957-58 ..	3.85	5.04	3.92	7.98	5.92	4.68	0.75	4.57	4.88
1958-59 ..	4.83	5.62	4.05	8.20	6.68	5.31	..	1.69	5.49
1959-60 ..	4.28	5.00	4.18	8.33	8.04	6.31	(a)	5.37	(b) 5.34
1960-61 ..	4.64	4.68	4.95	7.83	6.84	3.59	(a)	3.72	(b) 4.91
1961-62 ..	4.12	5.38	4.89	9.12	8.16	6.43	(a)	7.80	(b) 4.57

(a) Not available for publication.

(b) Incomplete; excludes Northern Territory.

(iv) *Gross Value.* The estimated gross value of the potato crop of each State for the 1961-62 season and the value per acre are shown in the following table.

#### POTATOES: VALUE OF CROP, 1961-62

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £'000	4,498	6,524	3,806	2,047	1,937	1,877	8	20,697
Value per acre £	222	179	263	385	284	169	27	219

(v) *Consumption.* The annual consumption of potatoes in Australia during each of the three years 1959-60 to 1961-62 amounted to 523,671 tons, 400,619 tons and 453,529 tons respectively, or 115.4 lb., 86.4 lb. and 95.8 lb. respectively per head of population. These figures exclude the quantities used for seed, which averaged about 46,700 tons annually over this period.

(vi) *Exports.* Details showing exports for the years 1957-58 to 1961-62 are given in the following table.

#### POTATOES: EXPORTS, AUSTRALIA

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Quantity .. .. tons	7,410	4,470	4,742	5,219	4,121
Value .. .. £A.'000 f.o.b.	227	151	134	195	160

Imports of potatoes into Australia in 1961-62 amounted to 3,233 tons, valued at £108,765, coming solely from New Zealand.

3. *Onions.*—(i) *Area, Production, and Yield.* Until recently Australia's onion supply came chiefly from Victoria. However, during the last five years, Victorian production has decreased until in one season, 1960-61, it was exceeded by that of Queensland. The Victorian crop consists almost entirely of brown onions, and the bulk of the crop is grown in a small section of the Western Division of the State, where the volcanic ash soils have been found to be particularly suitable for onion growing on a commercial scale. Most of Queensland's onion production is grown in the Lockyer Valley, and consists mainly of brown varieties. Details of the area, production and yield per acre are given in the following table for the years 1957-58 to 1961-62 together with averages for the three-year periods ended 1938-39, 1948-49 and 1958-59. A graph showing production since 1935-36 appears on page 996.

#### ONIONS: AREA, PRODUCTION AND AVERAGE YIELD

Season	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA (ACRES)								
Average for three years ended—								
1938-39 ..	126	5,634	1,187	521	122	8	6	7,604
1948-49 ..	433	6,245	2,234	534	468	26	4	9,944
1958-59 ..	491	4,614	3,655	635	413	29	9	9,846
Year—								
1957-58 ..	498	5,368	4,296	694	415	37	9	11,317
1958-59 ..	444	3,971	3,412	602	397	21	13	8,860
1959-60 ..	697	3,994	3,550	641	392	29	12	9,315
1960-61 ..	624	3,532	3,763	657	465	59	10	9,110
1961-62 ..	490	4,456	3,173	753	479	60	(a)	(b) 9,412
PRODUCTION (TONS)								
Average for three years ended—								
1938-39 ..	324	34,039	3,040	3,904	915	42	21	42,285
1948-49 ..	1,703	41,156	10,489	5,032	3,831	153	24	62,388
1958-59 ..	2,496	31,982	15,505	5,625	4,599	132	71	60,410
Year—								
1957-58 ..	2,343	40,678	18,653	5,945	4,149	186	76	72,030
1958-59 ..	2,476	28,456	13,584	5,318	5,043	97	106	55,080
1959-60 ..	3,658	27,808	14,708	5,644	4,830	135	39	56,822
1960-61 ..	3,935	16,286	21,156	5,947	5,826	285	80	53,515
1961-62 ..	3,082	23,784	17,921	6,915	6,290	327	(a)	(b) 58,323
YIELD PER ACRE (TONS)								
Average for three years ended—								
1938-39 ..	2.57	6.04	2.56	7.49	7.50	5.25	3.50	5.56
1948-49 ..	3.93	6.59	4.70	9.42	8.19	5.88	6.00	6.27
1958-59 ..	5.08	6.93	4.24	8.86	11.14	4.55	7.89	6.14
Year—								
1957-58 ..	4.70	7.58	4.34	8.57	10.00	5.03	8.44	6.36
1958-59 ..	5.58	7.17	3.98	8.83	12.70	4.62	8.15	6.22
1959-60 ..	5.25	6.96	4.14	8.80	12.32	4.66	3.25	6.10
1960-61 ..	6.31	4.61	5.62	9.05	12.52	4.83	8.00	5.87
1961-62 ..	6.29	5.34	5.65	9.18	13.13	5.45	(a)	(b) 6.20

(a) Not available for publication. (b) Includes a small area and production in Northern Territory but excludes Australian Capital Territory.

(ii) *Gross Value.* The estimated gross value of the onion crop and the value per acre are shown in the following table for the 1961-62 season.

ONIONS: VALUE OF CROP, 1961-62

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Aggregate value £'000	204	794	955	341	237	15	1	(a)	(b)2,547
Value per acre £	416	178	301	452	495	250	388	(a)	(b) 271

(a) Not available for publication.

(b) Incomplete; excludes Australian Capital Territory.

(iii) *Consumption.* The annual consumption of onions in Australia averaged 57,300 tons or 12.4 lb. per head of population during the three years ended 1961-62.

(iv) *Exports.* Onions are the only root crop, other than potatoes, in which any considerable overseas trade is carried on by Australia. In 1961-62, exports amounted to 2,369 tons, valued at £108,589, and were shipped mainly to Singapore, Canada and New Caledonia. The quantity of exports in 1960-61 was 2,453 tons, valued at £88,668. Imports of onions amounted to 2,809 tons, valued at £91,214 in 1960-61, and 260 tons, valued at £7,866 in 1961-62.

## § 7. Fruits and Vines

1. *Orchards and Fruit Gardens.*—(i) *General.* The varieties of fruit grown differ in various parts of the States, ranging from pineapples, papaws and mangoes in the tropics, to strawberries, raspberries and currants in the colder parts of the temperate zone. In New South Wales, citrus fruits (oranges, lemons, etc.) and bananas are the principal crops, although apples, peaches, plums, pears and cherries are grown extensively. The principal varieties grown in Victoria are apples, pears, peaches, oranges and apricots. In Queensland, apples, pineapples, bananas, oranges, mandarins, peaches and plums are the varieties most largely cultivated. In South Australia, in addition to oranges, apples, peaches, apricots and pears, almonds and olives are grown extensively. In Western Australia, apples, oranges, plums and pears are the chief varieties. In Tasmania, apples occupy over three-quarters of the fruit-growing area, but small fruits, such as currants, raspberries and gooseberries, are grown extensively, the balance of the area being mainly taken up with pears and apricots.

(ii) *Overseas Marketing of Fruit.* (a) *Apples and Pears.* The *Apple and Pear Organization Act 1938-1960* provides for the establishment of an Australian Apple and Pear Board comprising representatives of growers, exporters, employees and the Commonwealth Government. A representative in London has also been appointed by the Board. An export levy to meet the expenses of the Board is provided for in the *Apple and Pear Export Charges Act 1938-1960*.

The function of the Board is the organization and control of exports of fresh apples and pears, and it has the power to regulate shipments, determine export quotas, allocate consignments from each State and recommend the licensing of exporters. The Board contributes to apple and pear publicity activities overseas.

(b) *Canned Fruits.* The *Canned Fruits Export Control Act 1926-1959* was introduced with the object of organizing the overseas marketing of canned fruit. The Australian Canned Fruits Board, comprising members representing the Commonwealth Government, canners of apricots, peaches, pears, pineapples and fruit salad, and a representative of the growers of canning apricots, peaches and pears, was appointed to organize the overseas marketing of canned fruit and also to recommend the licensing of exporters. The Board establishes terms and conditions of sale overseas and contributes to overseas publicity connected with the canned fruit industry. It also maintains an office in London. The *Canned Fruits Export Charges Act 1926-1956* provides for a levy on exports to meet the Board's expenses.

In 1959, the Australian Canned Fruit Sales Promotion Committee was established to promote the sale of canned deciduous fruits on the home market and overseas. The operations of the Committee are financed by a levy on fruit accepted by the canneries for the production of canned fruit. The Committee comprises representatives of growers and processors of canning fruit and a representative of the Commonwealth Government.

(iii) *Area and Production of Fruit.* The area of orchards and fruit-gardens in Australia has been increasing steadily in recent years, until a record level was reached in 1961-62. Increases have been recorded in all States, with the exception of Tasmania. The following table sets out the area of orchards and fruit-gardens in the several States for the seasons 1957-58 to 1961-62.

**ORCHARDS AND FRUIT-GARDENS: AREA**  
(Acres)

Season	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1957-58 ..	88,170	66,221	40,856	35,295	22,186	23,013	81	93	275,915
1958-59 ..	92,780	66,746	43,911	37,237	22,903	23,168	86	89	286,920
1959-60 ..	93,870	68,567	42,587	37,355	23,757	22,713	98	57	289,004
1960-61 ..	92,962	71,415	41,067	37,711	23,913	22,194	120	55	289,437
1961-62 ..	94,246	72,712	41,872	38,548	24,487	21,859	136	65	293,925

The next table shows the acreage (bearing and non-bearing) of the principal kinds of fruit and the quantities produced in the 1961-62 season.

**ORCHARDS AND FRUIT GARDENS, 1961-62**

Fruit	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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**AREA, BEARING AND NON-BEARING (ACRES)**

Apples ..	17,095	21,373	11,576	5,660	14,553	17,254	..	60	87,571
Apricots ..	2,034	3,677	403	4,504	338	505	..	..	11,461
Bananas ..	22,965	..	5,919	..	259	..	37	..	29,180
Cherries ..	2,522	1,732	4	560	40	45	..	..	4,903
Citrus—									
Oranges ..	26,398	6,290	3,659	12,777	4,447	..	52	..	53,623
Mandarins ..	2,125	370	1,815	370	357	..	4	..	5,041
Lemons and limes ..	2,378	1,221	541	386	668	..	9	..	5,203
Other ..	524	298	71	402	126	..	6	..	1,427
Nuts ..	216	384	207	3,338	158	..	..	..	4,303
Peaches ..	7,925	14,065	1,798	4,883	905	51	..	(a)	b 29,627
Pears ..	3,305	16,489	796	2,080	1,027	1,641	..	(a)	b 25,338
Pineapples ..	235	..	10,299	..	..	..	15	..	10,549
Plums and prunes ..	4,936	2,068	1,432	1,246	1,046	111	..	(a)	b 10,839
Small fruits ..	58	918	249	120	12	2,218	..	..	3,575
Other fruits ..	1,530	3,827	3,103	2,222	551	34	13	5	11,285
<b>Total ..</b>	<b>94,246</b>	<b>72,712</b>	<b>41,872</b>	<b>38,548</b>	<b>24,487</b>	<b>21,859</b>	<b>136</b>	<b>65</b>	<b>293,925</b>

**PRODUCTION**

Apples '000 bus.	2,660	3,046	1,160	1,276	1,137	7,844	..	4	17,127
Apricots ..	315	632	34	806	39	43	..	..	1,869
Bananas ..	4,166	..	661	..	48	..	1	..	4,876
Cherries ..	161	137	(c)	50	1	5	..	..	354
Citrus—									
Oranges ..	4,404	985	530	1,891	356	..	2	..	8,168
Mandarins ..	207	28	219	34	20	..	(c)	..	508
Lemons and limes ..	479	151	84	39	84	..	1	..	838
Peaches ..	1,189	1,687	151	842	89	4	..	(d)	(b) 3,962
Pears ..	733	4,606	75	434	153	566	..	(d)	(b) 6,567
Pineapples ..	41	..	3,873	..	..	..	(c)	..	3,914
Plums and prunes ..	449	209	103	104	73	23	..	(d)	(b) 961

(a) Not available for publication; included with Other Fruits. (b) Incomplete; see footnotes (a) and (d). (c) Less than 500 bushels. (d) Not available for publication.

(iv) *Principal Fruit Crops.* The area and production of the principal fruit crops and the gross value of production during the seasons 1957-58 to 1961-62 are shown hereunder.

**PRINCIPAL FRUIT CROPS: AREA, PRODUCTION AND GROSS VALUE OF PRODUCTION**

Season	Apples	Apricots	Bananas	Oranges	Peaches	Pears	Plums and prunes
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**AREA, BEARING AND NON-BEARING (ACRES)**

1957-58 .. ..	82,595	12,689	26,981	47,928	23,451	21,989	10,816
1958-59 .. ..	83,614	12,103	31,798	48,453	25,215	23,014	10,385
1959-60 .. ..	85,269	12,059	31,708	49,328	26,376	23,684	10,569
1960-61 .. ..	86,882	11,945	29,870	50,626	26,883	23,935	10,665
1961-62 .. ..	87,571	11,461	29,180	53,623	29,627	25,338	10,839

**PRODUCTION ('000 BUSHELS)**

1957-58 .. ..	14,703	1,575	3,360	6,199	2,967	5,307	828
1958-59 .. ..	13,044	1,430	4,504	5,904	2,592	4,738	802
1959-60 .. ..	14,069	1,546	4,915	7,450	2,916	5,268	904
1960-61 .. ..	15,487	1,323	4,830	6,244	2,471	5,360	930
1961-62 .. ..	17,127	1,869	4,876	8,168	3,962	6,567	961

**GROSS VALUE OF PRODUCTION  
(£'000)**

1957-58 .. ..	19,211	2,400	9,121	8,724	3,854	6,635	1,478
1958-59 .. ..	16,539	2,054	8,588	8,918	3,194	4,916	1,479
1959-60 .. ..	17,174	2,013	7,613	7,407	3,293	5,361	1,579
1960-61 .. ..	20,643	1,935	7,715	9,470	3,470	6,592	1,828
1961-62 .. ..	20,003	2,877	8,631	9,597	4,767	7,204	1,661

(v) *Production of Jams and Jellies and Preserved Fruit.* In Australia, considerable quantities of fruit are used in the production of jams and jellies and for preserving. During 1961-62, output of jams, conserves, fruit spreads, etc., amounted to 98,313,000 lb., while output of preserved fruit amounted to 450,484,000 lb. Of the latter figure, pears accounted for 139,743,000 lb., peaches 148,482,000 lb. and pineapples 49,220,000 lb.

The recorded consumption of fruit in factories for all purposes, including that used for juice and cordial manufacture and for drying, was 227,000 tons in 1961-62.

(vi) *Consumption of Fruit and Fruit Products.* Details of the estimated consumption of fruit and fruit products per head of population for a series of years ending 1961-62 are shown in Chapter XXIX. Miscellaneous.

(vii) *Imports and Exports of Fruit.* (a) *General.* The imports of fresh fruit into Australia are negligible, while those of dried fruit consist mainly of dates.

A considerable export trade in both fresh and dried fruit is carried on by Australia with overseas countries. The values (£A. f.o.b.) of the shipments in 1961-62 amounted to £13,362,678 and £10,356,728 respectively. Apples constitute the bulk of the fresh fruit exported, although exports of pears and citrus fruit are considerable.

(b) *Fresh Fruit.* Particulars of the Australian export trade in fresh and frozen fruit for each of the years 1957-58 to 1961-62 are shown in the following table.

## FRESH AND FROZEN FRUIT: EXPORTS, AUSTRALIA

Year	Apples		Pears		Citrus		Total value(a)
	Quantity	Value	Quantity	Value	Quantity	Value	
	'000 bus.	£A.'000 f.o.b.	'000 bus.	£A.'000 f.o.b.	'000 bus.	£A.'000 f.o.b.	£A.'000 f.o.b.
1957-58 .. ..	5,891	9,074	1,448	2,755	572	882	13,060
1958-59 .. ..	4,948	6,625	1,100	1,783	415	664	9,413
1959-60 .. ..	4,889	6,123	1,328	1,970	589	918	9,294
1960-61 .. ..	5,729	7,321	1,235	2,080	419	664	10,369
1961-62 .. ..	7,083	9,396	1,639	2,575	673	1,086	13,363

(a) Includes exports of all other fresh and frozen fruit.

(c) *Dried Tree Fruit.* The quantity and value of overseas imports and exports of dried fruit, other than raisins and currants, for the years 1957-58 to 1961-62 are shown below. Normally, the bulk of the imports consists of dates obtained almost entirely from Iraq and Iran. The export figures include particulars of some re-exported dried fruits.

## DRIED TREE FRUIT(a): IMPORTS AND EXPORTS, AUSTRALIA

Year	Imports(b)		Exports	
	Quantity	Value	Quantity	Value
	'000 lb.	£A.'000 f.o.b.	'000 lb.	£A.'000 f.o.b.
1957-58 .. ..	8,683	209	1,366	186
1958-59 .. ..	8,411	203	3,352	482
1959-60 .. ..	10,791	310	6,221	703
1960-61 .. ..	9,178	303	8,199	932
1961-62 .. ..	8,266	314	5,961	782

(a) Excludes raisins and currants referred to separately under Vineyards (see p. 1056). (b) Dates and figs only.

(d) *Jams and Jellies.* Exports of jams and jellies in 1961-62 were 6,671,000 lb., valued at £A.473,000 f.o.b., compared with 6,331,000 lb., valued at £A.493,000 f.o.b. in 1960-61. Imports of jams and jellies are negligible.

(e) *Preserved Fruit (values in £A. f.o.b.).* The total value of fruit preserved in tins or other airtight containers, or pulped, imported into Australia during 1961-62 was £166,809. Large quantities of fruit preserved in tins or other airtight containers are normally exported from Australia, the quantity recorded in 1961-62 being 84,261 tons valued at £11,918,915. Exports in 1961-62 were principally made up of pears (38,957 tons), peaches (24,223 tons), pineapples (7,147 tons) and apricots (4,463 tons). In addition, the exports of pulped fruits during 1961-62 amounted to 1,137 tons valued at £234,146.

2. *Vineyards.*—(i) *General.* Grapes require a warm to hot climate and a predominantly winter rainfall of seventeen inches or more. Freedom from late spring frosts is essential.

Grapes are grown for wine-making, table use and drying. In Australia, wine is generally produced from non-irrigated crops, and dried fruits from the inland irrigation areas, but table grapes and grapes for fortified wines may be produced in both areas. The main wine producing areas are the Barossa valley (South Australia), Hunter valley (New South Wales), Rutherglen and Stawell districts in Victoria, and the Swan valley (Western Australia). Nearly all the dried fruits are produced along the River Murray and its tributaries, with small localized areas in the other States.



(ii) *Area of Vineyards.* The area under vineyards in the 1961-62 season in Victoria and South Australia constituted 78 per cent. of the total area of vineyards. The total area of vines in the several States during each of the years 1957-58 to 1961-62 and the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown in the following table.

## VINEYARDS: AREA

(Acres)

Season	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Aust.(a)
Average for three years ended—						
1938-39 .. ..	16,824	42,071	2,670	57,185	6,197	124,947
1948-49 .. ..	16,482	44,114	3,099	58,971	9,965	132,631
1958-59 .. ..	17,210	44,823	2,926	57,199	8,967	131,125
Years—						
1957-58 .. ..	16,984	44,767	2,821	57,439	9,023	131,034
1958-59 .. ..	17,252	44,801	3,041	56,749	8,881	130,724
1959-60 .. ..	17,236	44,129	3,083	56,853	8,951	130,252
1960-61 .. ..	16,988	44,649	3,110	56,897	8,864	130,508
1961-62—						
Wine .. ..	7,524	5,208	308	46,813	4,022	63,875
Table .. ..	2,670	2,561	2,895	266	1,371	9,763
Drying .. ..	7,413	37,336	..	10,757	3,624	59,130
<b>Total .. ..</b>	<b>17,607</b>	<b>45,105</b>	<b>3,203</b>	<b>57,836</b>	<b>9,017</b>	<b>132,768</b>

(a) Excludes particulars for Northern Territory and Australian Capital Territory.

NOTE.—There are no vineyards in Tasmania.

(iii) *Wine Industry.* (a) *General.* A large proportion of the wines produced in Australia are of the sweet fortified Spanish and Portuguese types, the remainder including Burgundy type wines and the light table wines, such as clarets and hocks.

Details of the Wine Research Trust Fund are given in Official Year Book No. 47, page 927.

(b) *Oversea Marketing of Wine.* The *Wine Overseas Marketing Act* 1929-1961 was introduced to place the oversea marketing of surplus wine on an orderly basis. The Australian Wine Board, consisting of representatives from wineries and distilleries, grape-growers and the Commonwealth Government, supervises the sale and distribution of Australian wine exported and recommends conditions under which export licences should be issued. The Board also engages in wine publicity and trade promotion activities both in Australia and overseas. In London, the Board maintains an office and an Australian Wine Centre, which is both a retail outlet for Australian wines and brandy and a medium for promoting interest in these products. The *Wine Grapes Charges Act* 1929-1961 provides for the imposition of a levy on all grapes used in Australia for the manufacture of wine, brandy and spirit used for fortifying wine. The proceeds of the levy are used to defray the administrative and other expenses of the Board, and provision is made for such exemptions from the levy as the Board may recommend.

(c) *Production and Consumption.* In 1961-62, the total production of wine (beverage and distillation) in Australia was 41.8 million gallons, while total consumption of beverage wine was 12.0 million gallons (1.13 gallons per head of population). Similar particulars for 1960-61 are 33.8 million gallons and 11.7 million gallons (1.12 gallons per head of population) respectively.

The quantity of wine produced in the several States during the 1957-58 to 1961-62 seasons, together with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59, are shown in the following table.

**WINE: PRODUCTION(a)**  
(<sup>'000</sup> gallons)

Season	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Aust.
Average for three years ended—						
1938-39 .. ..	2,712	1,359	31	14,021	396	18,519
1948-49 .. ..	4,178	3,040	31	25,906	689	33,844
1958-59 .. ..	3,974	2,435	36	25,190	743	32,378
Years—						
1957-58 .. ..	4,150	2,583	21	26,400	700	33,854
1958-59 .. ..	4,360	2,354	49	25,131	644	32,538
1959-60 .. ..	3,835	2,147	37	21,576	801	28,396
1960-61 .. ..	4,903	3,021	32	25,061	776	33,793
1961-62 .. ..	6,442	3,605	36	30,831	867	41,781

(a) Net factory and farm production of beverage and distillation wine excluding the liquid gallage of spirits added in wine fortifying.

(d) *Exports and Imports of Wine (values in £A. f.o.b.).* Imports for 1961-62 amounted to 82,153 gallons valued at £176,013 compared with 98,004 gallons valued at £205,286 in the previous year. During 1961-62, Italy supplied 29,527 gallons valued at £36,394, France supplied 18,802 gallons valued at £70,578, and the Federal Republic of Germany supplied 8,582 gallons valued at £24,717.

Exports in 1961-62 totalled 1,670,129 gallons, of which the United Kingdom received 1,160,607 gallons, Canada 336,885 gallons, New Zealand 35,865 gallons, Hong Kong 16,982 gallons, and other countries 119,790 gallons. Exports of Australian-produced wine for the five years ended 1961-62 are shown in the following table.

**WINE: EXPORTS FROM AUSTRALIA**

Year	Quantity (gallons)			Value (£A. f.o.b.)		
	Sparkling	Other	Total	Sparkling	Other	Total
1957-58 .. ..	4,872	1,484,609	1,489,481	18,194	978,484	996,678
1958-59 .. ..	5,185	1,740,280	1,745,465	10,861	1,139,840	1,150,701
1959-60 .. ..	6,436	1,738,616	1,745,052	19,625	1,245,241	1,264,866
1960-61 .. ..	11,441	1,884,978	1,896,419	29,786	1,273,079	1,302,865
1961-62 .. ..	5,145	1,664,984	1,670,129	17,100	1,368,930	1,386,030

(iv) *Dried Vine Fruit Industry.* (a) *General.* The dry, frost-free November to March period of the lower Murray valley makes this an ideal area for dried vine fruits. Harvesting for drying takes place at the end of summer. The sun-drying process is often accelerated by using a dip of cold potash.

(b) *Oversea Marketing of Dried Fruits.* The *Dried Fruits Export Control Act* 1924-1953 was passed to organize oversea marketing of Australian dried vine fruits. The *Dried Fruits Control Board*, consisting of growers' representatives, members with commercial experience in marketing dried fruits, and a Government representative, controls the sale and distribution of dried fruit exports, recommends the licensing of exporters, and contributes to dried vine fruits publicity activity overseas. In conjunction with its London office, the Board has improved dried fruit marketing overseas by its system of appraisement, regulation of shipments and advertising.

*The Dried Fruits Export Charges Act 1924-1929* provides for a levy on exports of dried fruits to defray costs and expenses incurred by the Board.

For details of the agreements which were negotiated between the Governments of the United Kingdom and Australia during the period 1946-1953, see Official Year Book No. 40, page 888. From 1st December, 1953, exports have been made on a trader to trader basis.

(c) *Production and Disposal of Dried Vine Fruit.* As the production of dried vine fruit is far in excess of Australia's requirements, considerable quantities are available for export. Total production during the 1961-62 season amounted to 96,498 tons, while exports for the year ended December, 1962, were 70,708 tons, leaving an estimated 24,944 tons available for Australian consumption from that season's production. Australian consumption includes amounts delivered to biscuit manufacturers, bakeries, etc., as well as retail sales for household consumption.

The production of dried vine fruit during each of the seasons 1957-58 to 1961-62 and the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown in the following table.

**DRIED VINE FRUIT: PRODUCTION**  
(Tons)

Season	N.S. Wales		Victoria		South Aust.		Western Aust.		Australia	
	Raisins (a)	Cur- rants	Raisins (a)	Cur- rants	Raisins (a)	Cur- rants	Raisins (a)	Cur- rants	Raisins (a)	Cur- rants
Average for three years ended—										
1938-39 ..	5,464	1,163	39,810	8,953	13,215	9,009	723	2,179	59,212	21,304
1948-49 ..	5,429	994	40,027	7,380	8,811	5,243	580	3,179	54,847	16,796
1958-59 ..	10,300	705	53,178	4,294	11,115	4,432	118	1,746	74,711	11,177
Year—										
1957-58 ..	10,608	674	56,742	4,153	11,306	4,824	111	2,136	78,767	11,787
1958-59 ..	10,914	856	52,707	4,776	12,323	4,531	94	1,055	76,038	11,218
1959-60 ..	7,722	462	44,764	3,331	9,192	2,844	73	1,402	61,751	8,039
1960-61 ..	10,777	981	51,002	5,583	6,751	4,543	51	1,984	68,581	13,091
1961-62 ..	13,089	410	64,862	2,714	10,674	2,742	66	1,941	88,691	7,807

(a) Including sultanas and lexias.

(d) *Exports.* The following table shows the exports of dried vine fruit during each of the years 1957-58 to 1961-62.

**DRIED VINE FRUIT(a): EXPORTS, AUSTRALIA**

Year	Raisins, Sultanas and Lexias		Currants		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
	Tons	£A.'000 f.o.b.	Tons	£A.'000 f.o.b.	Tons	£A.'000 f.o.b.
1957-58 ..	52,297	8,019	7,398	938	59,695	8,957
1958-59 ..	68,240	11,213	7,580	1,050	75,820	12,263
1959-60 ..	45,634	7,726	4,540	637	50,174	8,363
1960-61 ..	48,805	7,133	7,838	1,032	56,643	8,165
1961-62 ..	60,169	8,955	4,564	620	64,733	9,575

(a) Excludes quantities exported as mincemeat.

The chief countries importing Australian dried vine fruit are the United Kingdom, Canada, New Zealand and the Federal Republic of Germany. The quantities exported to these countries in 1961-62 were 33,791 tons, 16,152 tons, 7,126 tons and 4,377 tons respectively.

(v) *Table Grapes.* Grapes for table use are grown in all States except Tasmania, but the area of this type was only about 7 per cent. of the productive area of vines in 1961–62. The quantities of table grapes produced during the season 1961–62 in each State are shown in § 2 of this division. (See p. 1009.)

## PASTORAL PRODUCTION

### § 1. Introduction

1. *Livestock Numbers.*—A detailed account of the various enumerations of livestock in Australia made prior to 1860 was given in previous issues of the Year Book. Since 1860, annual enumerations have been made, based, with few exceptions, on actual collections made through the agency of the State police or by post. Particulars concerning the numbers of each of the principal kinds of livestock in Australia at decennial intervals from 1860 to 1950, and from 1958 onwards in single years, are given in the following table, and are shown continuously since 1870 on the graph on page 1061.

LIVESTOCK: AUSTRALIA  
(‘000)

Year	Horses	Cattle	Sheep	Pigs	Year	Horses	Cattle	Sheep	Pigs
1860 ..	432	3,958	20,135	351	1940 ..	1,699	13,080	119,305	1,455
1870 ..	717	4,276	41,594	543	1950 ..	1,057	14,640	112,891	1,123
1880 ..	1,069	7,527	62,184	816	1958 ..	694	16,892	149,315	1,423
1890 ..	1,522	10,300	97,881	891	1959 ..	671	16,257	152,685	1,289
1900 ..	1,610	8,640	70,603	950	1960 ..	640	16,503	155,174	1,424
1910 ..	2,166	11,745	98,066	1,026	1961 ..	598	17,332	152,679	1,615
1920 ..	2,416	13,500	81,796	764	1962 ..	562	18,033	157,712	1,652
1930 ..	1,793	11,721	110,568	1,072					

While livestock numbers (particularly sheep) have increased substantially since 1860, marked fluctuations have taken place during the period, mainly on account of widespread droughts which have from time to time left their impressions on the pastoral history of Australia. These occurred in 1868, 1877, 1883–84, 1892, 1893, 1895, 1901–02, 1912, 1914, 1918, 1919, 1922–23, 1925–26, 1927–28, 1929–30, 1940–41 and 1944–45 to 1946–47.

The years in which the numbers of livestock attained their peaks are as follows:—horses, 1918 (2,527,000); cattle, 1962 (18,033,000); sheep, 1962 (157,712,000); and pigs, 1941 (1,797,000).

The distribution throughout Australia of beef cattle, dairy cattle, sheep and pigs at 31st March, 1955, is shown in the maps on pages 909–12 of Official Year Book No. 43.

The numbers of horses, beef cattle and sheep in each State and Territory are shown later in this chapter; similar information for dairy cattle and pigs appears in the division Other Rural Industries of this chapter.

2. *Carrying Capacity of Pastoral Holdings.*—The carrying capacity of pastoral holdings has been increased in recent years, owing in some measure to the succession of good seasons experienced since 1946 (with the exception of the 1957–58 season, when prevailing dry conditions caused a slight decline in cattle and sheep numbers). Other important factors contributing to the progressive increase over this period have been the increased attention given to pasture improvement and the reduction of rabbit infestation, principally due to the introduction, in 1950, of the disease myxomatosis. Some information on pasture improvement in Australia is given on pages 1001–2.

3. *Size Classification of Cattle Herds and Sheep Flocks.*—A special series of tabulations relating to rural holdings in Australia was compiled for 1959–60 and has been published in full detail in a series of bulletins, *Classification of Rural Holdings by Size and Type of Activity*, 1959–60. Tables in these bulletins relating to beef, dairy cattle and sheep show classifications according to size of herd or flock, area of holding, area of wheat for grain, area of sown pastures, and type of activity. These data are presented by statistical division. An earlier series, prepared for the year 1955–56, presents similar data, but only by State.

4. *Value of Pastoral Production.*—(i) *Gross, Local and Net Values, 1961–62.* Values of pastoral production for each State are shown for 1961–62 in the following table. Further details of the source of the information and an explanation of the terms used in this compilation will be found in Chapter XXIX. Miscellaneous. Maintenance costs have not been computed in all States and depreciation has not been deducted; consequently the net values are inflated to the extent of these amounts.

**GROSS, LOCAL AND NET VALUES OF PASTORAL PRODUCTION, 1961–62**  
(£'000)

State or Territory	Gross production valued at principal markets	Marketing costs	Gross production valued at farm	Value of materials used in process of production	Net value of production (a)
New South Wales .. ..	218,914	18,799	200,115	(b) 17,113	183,002
Victoria .. ..	143,880	16,906	126,974	11,446	115,528
Queensland .. ..	106,198	9,478	96,720	10,271	86,449
South Australia .. ..	55,925	4,098	51,827	6,199	45,628
Western Australia .. ..	52,655	4,035	48,620	7,292	41,328
Tasmania .. ..	11,655	792	10,863	5,009	5,854
Northern Territory .. ..	3,357	752	2,605	(c)	2,605
Australian Capital Territory ..	1,075	50	1,025	81	944
<b>Australia .. ..</b>	<b>593,659</b>	<b>54,910</b>	<b>538,749</b>	<b>57,411</b>	<b>481,338</b>

(a) No deduction has been made for depreciation and maintenance. (b) No allowance has been made for costs of power, power kerosene, petrol and other oils. (c) Not available.

(ii) *Net Values, 1957–58 to 1961–62.* The net value of pastoral production by State and the net value per head of population are shown below.

**NET VALUE OF PASTORAL PRODUCTION(a)**

Year	N.S.W.(b)	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.(c)
NET VALUE (£'000)							
1957–58 ..	157,679	115,970	80,301	44,863	36,947	(b) 8,078	447,247
1958–59 ..	162,366	110,392	90,760	38,425	30,582	6,652	443,622
1959–60 ..	198,380	135,630	99,884	50,067	39,659	7,846	536,215
1960–61 ..	159,960	116,181	94,346	36,119	39,978	6,403	458,169
1961–62 ..	183,002	115,528	86,449	45,628	41,328	5,854	481,338

**NET VALUE PER HEAD OF POPULATION  
(£)**

1957–58 ..	43.1	43.2	56.5	50.6	53.3	24.3	45.9
1958–59 ..	43.5	40.1	62.6	42.3	43.3	19.6	44.6
1959–60 ..	52.3	48.1	67.6	53.6	55.3	22.8	52.8
1960–61 ..	41.3	40.2	62.7	37.7	54.8	18.3	44.1
1961–62 ..	46.4	39.1	56.6	46.6	55.4	16.4	45.4

(a) No deduction has been made for depreciation and maintenance. Payments to woolgrowers of profits from the war-time wool disposal plan, which were virtually completed by 30th June, 1959, have been excluded. (b) No allowance has been made for costs of power, power kerosene, petrol and other oils. (c) Includes Northern Territory and Australian Capital Territory.

5. **Indexes of Quantum and Price of Pastoral Production, 1957-58 to 1961-62.**—The quantum indexes relate to gross output of farm products valued at constant prices. The quantities of each farm product produced each year have been re-valued at the unit gross value for the period 1936-37 to 1938-39. The price indexes relate to average "prices" of farm products realized in the principal markets of Australia. Average quantities of each product marketed in the period 1946-47 to 1950-51 have been used as fixed weights. For further details of the methods of calculating these indexes and of the weights used, see Chapter XXIX. Miscellaneous.

### INDEXES OF QUANTUM(a) AND PRICE OF PASTORAL PRODUCTION: AUSTRALIA

(Base: Average 3 years ended June, 1939 = 100)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
<b>QUANTUM(a) PRODUCED</b>					
Wool .. ..	148	164	172	165	174
Other products .. ..	134	152	153	136	160
<i>Total, Pastoral</i> ..	<i>142</i>	<i>159</i>	<i>163</i>	<i>152</i>	<i>167</i>
Per head of population	100	110	110	100	108
<b>PRICE</b>					
Wool .. ..	473	370	440	397	412
Other products .. ..	377	435	500	513	433
<i>Total, Pastoral</i> ..	<i>435</i>	<i>396</i>	<i>464</i>	<i>443</i>	<i>421</i>

(a) Index of value at constant prices, i.e. quantities revalued at average unit values of base years, 1936-37 to 1938-39.

## § 2. Sheep

1. **Distribution throughout Australia.**—With the exception of a short period in the early eighteen-sixties, when the flocks of Victoria outnumbered those of New South Wales, the latter State has occupied the premier position in sheep-raising, depasturing nearly one-half of the sheep of Australia.

Maps showing the distribution of sheep in Australia have been published in previous issues of the Official Year Book (see No. 43, p. 911, for 1955; No. 39, p. 907, for 1948; No. 34, p. 432, for 1938-39; and No. 22, p. 659, for 1924-25). Graphs showing the number of sheep in Australia from 1870 onwards appear on pages 1061-2.

The numbers of sheep in the several States and Territories at 31st March of each year 1958 to 1962 compared with average numbers for the three-year periods ended 1939, 1949 and 1959 are shown in the following table.

### SHEEP: NUMBER

('000)

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
<b>Average for three years ended—</b>									
1939 ..	51,202	17,845	21,889	8,916	8,972	2,460	23	251	111,558
1949 ..	46,525	17,900	16,442	8,793	10,368	2,060	24	227	102,339
1959 ..	67,006	26,615	22,537	15,285	15,609	3,259	25	265	150,601
<b>Year—</b>									
1958 ..	65,410	27,090	22,274	15,236	15,724	3,298	27	256	149,315
1959 ..	67,936	26,925	22,148	15,634	16,215	3,536	19	272	152,685
1960 ..	71,000	26,597	23,332	14,025	16,412	3,494	15	299	155,174
1961 ..	68,087	26,620	22,135	14,952	17,152	3,439	16	278	152,679
1962 ..	69,498	27,533	22,125	16,415	18,314	3,531	10	286	157,712

Except when affected by drought, the relative numbers of sheep in the different States have remained fairly constant in recent years. The percentage distribution in 1962 was:—New South Wales, 44; Victoria, 18; Queensland, 14; South Australia, 10; Western Australia, 12; and Tasmania, 2.

2. **Numbers of Sheep on Rural Holdings.**—(i) *Size of Sheep Flocks.* Details of the size of sheep flocks on rural holdings in Australia for 1959–60 have been published in a series of publications entitled *Classification of Rural Holdings by Size and Type of Activity*, 1959–60.

(ii) *Sheep Numbers.* A record level of 157.7 million sheep was reached at 31st March, 1962. This figure is 2.5 million more than the previous maximum in 1960. In 1961, sheep numbers were only 152.7 million, the reduction being due primarily to dry conditions in Queensland and northern New South Wales.

The following table shows the approximate movement in sheep numbers in Australia in each year 1957–58 to 1961–62.

#### SHEEP AND LAMBS: ANALYSIS OF MOVEMENT IN NUMBERS, AUSTRALIA

('000)

Season	Lambs marked	Excess of exports	Sheep and lambs slaughtered	Estimated number of deaths from disease, drought, etc.(a)	Number at 31st March	Annual net increase (+) or decrease(—)
1957–58.. ..	36,850	120	24,417	12,800	149,315	— 487
1958–59.. ..	38,748	136	26,963	8,279	152,685	+ 3,370
1959–60.. ..	44,150	(b) 226	32,088	9,347	155,174	+ 2,489
1960–61.. ..	39,792	(b) 148	32,582	9,557	152,679	— 2,495
1961–62.. ..	45,596	(b) 201	33,317	7,045	157,712	+ 5,033

(a) Balance figure.

(b) No imports in this year.

3. **Classification of Sheep According to Age, Sex and Breed.**—In the following table, numbers of sheep in Australia are classified according to age and sex at 31st March.

#### SHEEP: AGE AND SEX, AUSTRALIA

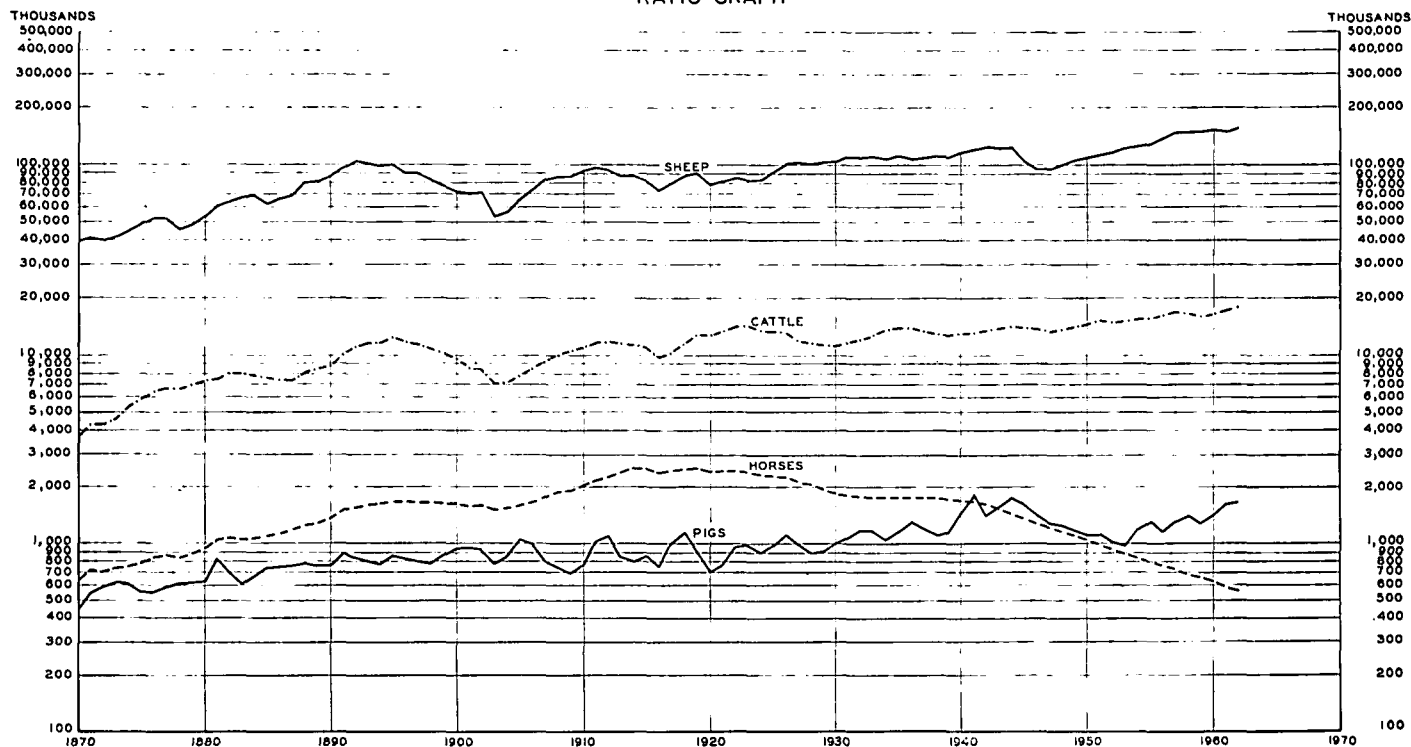
('000)

Description	1958	1959	1960	1961	1962
Rams, 1 year and over ..	1,883	1,919	1,898	1,934	1,956
Breeding ewes (including ewes intended for mating) ..	66,059	69,470	68,455	69,662	70,693
Other ewes, 1 year and over ..	9,795	8,295	9,276	8,951	8,729
Wethers, 1 year and over ..	43,688	43,578	43,046	42,912	43,021
Lambs and hoggets, under 1 year .. ..	27,890	29,423	32,499	29,220	33,313
<b>Total, Sheep and Lambs</b>	<b>149,315</b>	<b>152,685</b>	<b>155,174</b>	<b>152,679</b>	<b>157,712</b>

Particulars relating to the principal breeds of sheep at 31st March, 1962, the latest date for which these data are available (details are collected on a triennial basis), are shown in the following table.

# LIVESTOCK: AUSTRALIA, 1870 to 1962

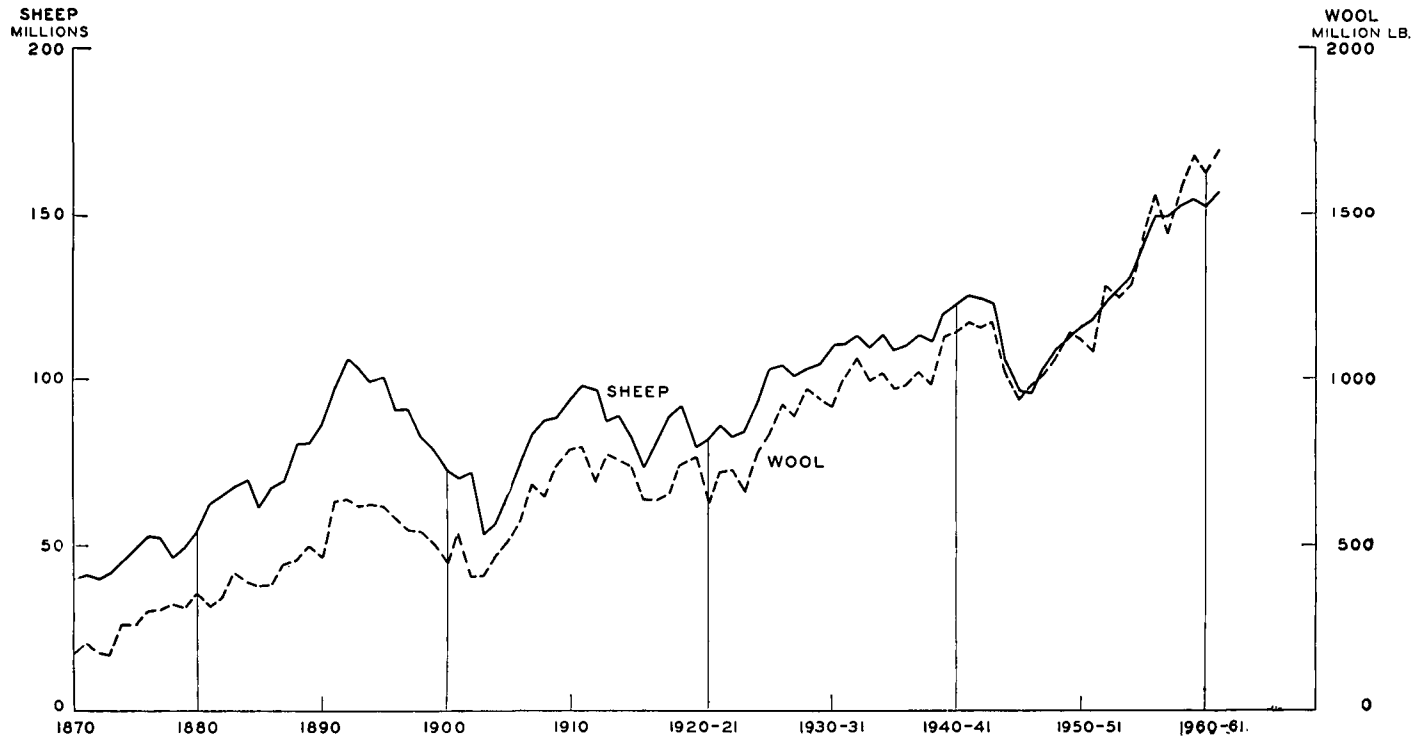
RATIO GRAPH



NOTE:— VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE; ACTUAL NUMBERS ARE INDICATED BY SCALE.



# SHEEP NUMBERS AND WOOL PRODUCTION: AUSTRALIA 1870 TO 1961-62



**SHEEP: PRINCIPAL BREEDS, 31st MARCH, 1962**  
( '000)

Breed	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Merino ..	54,096	12,116	21,754	13,772	16,902	337	10	247	119,234
Other recognized breeds ..	7,203	6,990	48	1,149	587	1,959	..	11	17,947
Merino come-backs(a) ..	1,865	2,570	74	307	215	429	..	7	5,467
Crossbreeds(b) ..	6,334	5,857	249	1,187	610	806	..	21	15,064
Total ..	69,498	27,533	22,125	16,415	18,314	3,531	10	286	157,712

(a) Merino comeback is the progeny of a crossbred merino ewe and a merino ram, i.e. finer than half-bred.  
(b) Half-bred and coarser.

4. **Imports and Exports of Sheep.**—The overseas exports of live sheep from Australia are of comparatively minor importance. On 27th November, 1929, the export of stud merino sheep was prohibited, except with the approval of the Minister for Primary Industry. Exports of sheep are now principally for slaughter overseas. Consignments for this purpose in recent years were made chiefly from Western Australia to Singapore. Since June, 1958, an embargo has been imposed on the import of sheep in order to prevent the introduction of the disease blue-tongue. The following table shows the imports and exports of all sheep for the years 1957–58 to 1961–62.

**SHEEP: IMPORTS AND EXPORTS, AUSTRALIA**

Year	Imports		Exports	
	No.	Value	No.	Value
		£A.'000 f.o.b.		£A.'000 f.o.b.
1957–58 .. ..	2,256	90	122,628	466
1958–59 .. ..	5	1	135,720	393
1959–60 .. ..	(a)	(a)	225,757	805
1960–61 .. ..	(a)	(a)	147,592	461
1961–62 .. ..	(a)	(a)	200,883	697

(a) An embargo was placed on the import of sheep in June, 1958; see text above.

5. **Comparison with other Countries.**—In 1961–62, Australian flocks numbered 158 million sheep, compared with an estimate of 240 million for the U.S.S.R., China, and eastern Europe combined, about 49 million in New Zealand, and about 46 million in Argentina. World sheep numbers were estimated at about 920 million in 1961–62. These figures relate only to woolled sheep, non-woolled sheep accounting for about 5 per cent. of the world total of all types of sheep. Further details of sheep numbers in the principal wool producing countries of the world are given in the table on page 1075.

### § 3. Cattle

1. **Objects of Cattle-raising.**—Cattle-raising is carried out in all the States, the main object in certain districts being the production of stock suitable for slaughtering purposes, and in others the raising of profitable dairy herds. While dairy cattle are mainly restricted to coastal districts, beef cattle are more widely distributed, particularly in the eastern States, and are raised in areas unsuitable for dairy cattle, such as the tropical area of northern Queensland, the Northern Territory, and the Kimberley district in the north of Western Australia.

2. **Distribution throughout Australia.**—Although cattle numbers declined after 1957 because of drought conditions and heavy slaughtering, they began to rise again in 1960, and in 1962 reached a record level of 18,033,000.

A graph showing the number of cattle in Australia from 1870 onwards appears on page 1061.

The numbers of cattle (beef and dairy) in the several States and Territories in each year 1958 to 1962, compared with averages for the three-year periods ended 1939, 1949 and 1959, are shown below.

**CATTLE: NUMBER**  
(<sup>'000</sup>)

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1939 ..	3,040	1,861	6,002	324	767	260	882	8	13,144
1949 ..	3,122	2,153	5,971	443	830	244	1,006	9	13,778
1959 ..	3,770	2,722	7,177	598	985	367	1,173	10	16,802
Year—									
1958 ..	3,736	2,750	7,187	597	997	371	1,244	10	16,892
1959 ..	3,664	2,651	6,884	576	1,000	374	1,099	9	16,257
1960 ..	3,840	2,624	7,012	500	1,030	375	1,111	11	16,503
1961 ..	4,242	2,864	7,004	561	1,100	394	1,154	13	17,332
1962 ..	4,399	3,156	7,098	659	1,218	425	1,064	14	18,033

Although the proportion was not as high as it has been in some previous years, Queensland was carrying 39 per cent. of the cattle in Australia in 1962. The percentage in each State and Territory during that year was:—New South Wales, 24; Victoria, 18; Queensland, 39; South Australia, 4; Western Australia, 7; Tasmania, 2; and Northern Territory, 6.

Maps showing the distribution of beef and dairy cattle in Australia have been published in previous issues of the Official Year Book (*see* No. 43, pp. 909–10, for 1955; No. 39, pp. 905–6, for 1948; No. 34, pp. 453–4, for 1938–39; and No. 22, p. 660, for 1924–25).

3. *Classification of Cattle.*—(i) *According to Purpose.* Of the total number of cattle in Australia in 1962, 12,987,000 or 72 per cent. were classified as beef cattle. The numbers classified as beef cattle in the several States and Territories during the years 1958 to 1962, compared with averages for the three-year periods ended 1949 and 1959, are shown in the following table.

**BEEF CATTLE: NUMBER**  
(<sup>'000</sup>)

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1949 ..	1,832	686	4,592	171	604	100	1,006	6	8,997
1959 ..	2,462	1,023	5,882	341	763	165	1,173	7	11,816
Year—									
1958 ..	2,429	1,026	5,917	338	771	167	1,244	6	11,898
1959 ..	2,382	998	5,643	328	784	171	1,099	6	11,411
1960 ..	2,562	946	5,757	260	814	168	1,111	8	11,626
1961 ..	2,961	1,147	5,790	313	876	180	1,155	9	12,431
1962 ..	3,127	1,332	5,890	385	983	196	1,063	11	12,987

Particulars relating to dairy cattle numbers will be found in the division Other Rural Industries of this chapter. (*See* p. 1086.)

(ii) *According to Size of Cattle Herds.* Details of size of cattle herds on rural holdings in Australia for 1959–60 have been published in a series of publications entitled *Classification of Rural Holdings by Size and Type of Activity*.

4. *Cattle and Beef Research Schemes.*—In May, 1960, legislation was enacted to provide for a Commonwealth scheme for an expanded programme of research into the scientific, technical and economic problems connected with the Australian beef industry.

Funds are raised by a levy on all cattle weighing over 200 lb. dressed which are slaughtered for human consumption, and the Commonwealth provides a matching contribution on a £1 for £1 basis to meet expenditure on new research. The scheme is administered by the Australian Cattle and Beef Research Committee, whose main function is to formulate plans for projects on which the funds may be expended. The research is undertaken by existing bodies such as the universities, C.S.I.R.O. and State Departments of Agriculture.

The Minister for Primary Industry has approved a research programme of £483,000 for 1963-64.

At its first meeting in June, 1960, the Committee agreed to recommend to the Minister for Primary Industry that the levy be fixed at the maximum provided in the Act, namely 2s. per head. The levy was operative from 1st July, 1960. It was suspended in October, 1960, as a result of a High Court writ being issued by certain meat operators challenging the validity of the Act. Amending legislation was enacted in October, 1961, and the levy again became operative from the 14th October, 1961. The three Acts covering the research arrangements and collection of the levy are the *Cattle and Beef Research Act 1960-1961*, the *Cattle Slaughter Levy Collection Act 1960-1961*, and the *Cattle Slaughter Levy Act 1960*. The *Cattle Slaughter Levy (Suspension) Act 1961* covers the suspension of levy from 14th October, 1960, to 13th October, 1961.

5. **Imports and Exports of Cattle.**—In 1961-62, most of the cattle exported from Australia were sent to Hong Kong for slaughtering, the number exported thereto being 5,280 head valued at £121,343. The number of cattle imported is small and consists mainly of valuable animals for stud purposes. Since June, 1958, an embargo has been imposed on the import of cattle in order to prevent the introduction of the disease blue-tongue. Details for the years 1957-58 to 1961-62 are shown in the following table.

#### CATTLE: IMPORTS AND EXPORTS, AUSTRALIA

Year	Imports		Exports	
	No.	Value	No.	Value
		£A.'000 f.o.b.		£A.'000 f.o.b.
1957-58 .. .. .	272	174	23,933	932
1958-59 .. .. .	37	62	13,900	493
1959-60 .. .. .	(a)	(a)	13,602	456
1960-61 .. .. .	(a)	(a)	10,159	404
1961-62 .. .. .	(a)	(a)	7,304	303

(a) An embargo was placed on the import of cattle in June, 1958; see text above.

6. **Comparison with Other Countries.**—The following table shows the number of cattle in Australia and in some of the principal cattle-raising countries of the world at the latest available date.

#### CATTLE: NUMBER IN VARIOUS COUNTRIES

(Source: *World Agricultural Production and Trade*, United States Department of Agriculture) ('000)

Country	Year and Month	Number(a)
India(b) .. .. .	1961 (May) .. .. .	226,809
United States of America .. .. .	1963 (January) .. .. .	103,734
U.S.S.R. .. .. .	1963 (January) .. .. .	86,800
Brazil .. .. .	1962 (December) .. .. .	78,080
China, Republic of (Mainland)(b) .. .. .	1960 (December) .. .. .	65,400
Argentina .. .. .	1963 (June) .. .. .	42,000
Pakistan(b) .. .. .	1961 (Estimate) .. .. .	30,300
Mexico .. .. .	1963 (Spring) .. .. .	23,500
Ethiopia .. .. .	1961 (Estimate) .. .. .	21,800
France .. .. .	1962 (October) .. .. .	20,680
Australia .. .. .	1962 (March) .. .. .	18,033
Colombia .. .. .	1962 (October) .. .. .	15,600
Germany, Federal Republic of .. .. .	1962 (December) .. .. .	13,350
Turkey(b) .. .. .	1962 (December) .. .. .	13,100
South Africa .. .. .	1959 (August) .. .. .	11,300

(a) Subject to revision.

(b) Includes buffaloes.

### § 4. Horses

1. **Distribution throughout Australia.**—About 80 per cent. of the horses in Australia are in the States of New South Wales, Victoria and Queensland. In the following table, figures are shown for each State and Territory for the years 1958 to 1962.

#### HORSES: NUMBER

('000)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1958 ..	221	98	243	35	44	13	39	1	694
1959 ..	214	91	240	33	41	12	39	1	671
1960 ..	204	81	234	30	41	11	38	1	640
1961 ..	192	65	224	27	40	9	40	1	598
1962 ..	168	61	217	25	40	9	41	1	562

The number of horses in Australia reached a peak of 2,527,000 in 1918. Since then, it has declined, because of mechanization of transport and farming, at an average rate of 45,000 a year. A graph showing the number of horses in Australia since 1870 appears on page 1061.

The percentage distribution of the number of horses in each State and Territory for 1962 was:—New South Wales, 30; Victoria, 11; Queensland, 39; South Australia, 4; Western Australia, 7; Tasmania, 2; and Northern Territory, 7.

2. **Overseas Trade in Horses.**—Exports of horses in 1961–62 numbered 579, valued at £354,483 (Australian produce 492 for £261,346; re-exports 87 for £93,137), made up of horses for breeding (111 valued at £33,935), horses for racing (336 valued at £287,492, shipped principally to Singapore) and horses for other purposes (132 valued at £33,056).

The few horses imported into Australia are mainly stud animals from the United Kingdom and racehorses from New Zealand. The total number imported in 1961–62 was 563 valued at £504,195.

### § 5. Pastoral Products: Wool

1. **General.**—With about one-sixth of the world's woolled sheep, Australia produces more than one-quarter of the world's wool and more than half of the world's fine-quality merino wool. The bulk of the production is exported, mainly as greasy wool, although substantial amounts of scoured and carbonized wool, wool on sheep skins and small quantities of semi-manufactured wool are also shipped. The remainder, which is used by Australian manufacturers, has amounted to only about 7 per cent. of the total production (greasy basis) in recent years.

The important position held by Australia among the principal sheep and wool producing countries of the world is shown in the table on page 1075.

2. **Wool Marketing, Promotion and Research.**—Details of past marketing schemes and agreements, including the 1914–18 War Imperial Purchase Scheme, the British Australian Wool Realization Association Ltd., the 1939–45 War Acquisition Scheme, Joint Organization and Minimum Reserve Price Plan, are given in previous issues of the Official Year Book.

3. **Auction System.**—More than ninety per cent. of the Australian wool clip is disposed of at auction. (During both world wars, however, auction selling was suspended and replaced by bulk purchase schemes.)

There are thirteen recognized wool-selling centres, namely Sydney, Goulburn, Newcastle, Albury, Melbourne, Geelong, Ballarat, Brisbane, Adelaide, Perth, Albany, Hobart and Launceston. At these centres, wool-selling brokers operate large stores where wool received from growers is held awaiting sale.

Each year a wool-selling programme is drawn up jointly by the selling brokers and wool-buyers on the basis of the expected clip. Selling dates and the quantities to be offered are then determined for each centre.

Before each sale, the selling brokers, who act as agents for the woolgrowers, display a representative portion of the wool to be sold on show floors for buyers' inspection and valuation. Auction sales are attended by buyers purchasing on behalf of wool users in over fifty countries.

**4. Wool Marketing Committee of Inquiry and Wool Industry Act.**—In January, 1961, the Commonwealth Government appointed an independent committee to inquire into the marketing and promotion of Australian wool and related matters (*see* Official Year Book No. 48, page 977, for further details). The Committee presented its report to the Government in February, 1962. Its most important recommendation was that the promotion of wool and research into the industry should be brought under the control of a single body, which should also act as an advisory authority on wool marketing. The other recommendations of the Committee largely depended upon this recommendation to establish a central authority. The *Wool Industry Act* was passed by Parliament in December, 1962. Parts 1, 2, 5 and 6 were proclaimed on 1st May, 1963, and Part 3 on 1st July, 1963. Part 4 has not yet been proclaimed. This Act provided for the establishment of the Australian Wool Board.

**5. Australian Wool Board.**—This Board took over the functions of the Australian Wool Bureau, the Wool Research Committee and the Australian Wool Testing Authority. Details of these bodies appear in Official Year Book No. 48, pages 977–81. In addition to these functions, the new Wool Board will investigate all aspects of wool marketing on a continuing basis and advise on measures which should be adopted to meet changing marketing conditions.

The Wool Board consists of a Chairman, six members to represent woolgrowers, a representative of the Commonwealth Government and three other members. The first Chairman of the Board was appointed by the Minister for Primary Industry after consultation with the Australian Wool Industry Conference (*see* below). Subsequent Chairmen will be appointed on the nomination of the Board. The six woolgrower representatives have been appointed by the Minister on the nomination of the Conference, while the three other members have been appointed from a panel of names submitted by the Conference. These three members have been drawn from the separate fields of wool-marketing and manufacturing, research, finance and commerce.

Under the Act, the Wool Board will be required to establish a Wool Marketing Committee, whose function will be to initiate and maintain a continuing investigation into all aspects of wool marketing. The Committee will report its findings to the Board, which in turn, will make recommendations to the Australian Wool Industry Conference on any proposed significant alterations to the marketing system. It is the stated policy of both federal woolgrower organizations, with which the Commonwealth Government agrees, that no fundamental change should be made in the present system of wool-marketing without the approval of woolgrowers at a referendum except in a state of national emergency. The Board will not have any executive powers over marketing.

The Board will be required to establish similar committees to administer wool testing and to advise it on wool research. Details relating to the Australian Wool Testing Authority and the Wool Research Committee under prior legislation are given in Official Year Book No. 48, pages 978 and 981.

**6. The Australian Wool Industry Conference.**—The Australian Wool Industry Conference is at present composed as follows:—one independent Chairman, twenty-five woolgrowers nominated by the Australian Woolgrowers' and Graziers' Council and twenty-five woolgrowers nominated by the Australian Wool and Meat Producers' Federation.

This Conference is a non-statutory body, but is the recognized national forum of woolgrowers. It was constituted jointly by the Council and the Federation on 24th October, 1962.

The principal functions of the Conference are to nominate the six woolgrower representatives for appointment to the Australian Wool Board; consult with the Minister for Primary Industry concerning the appointment of the three other members to the Board; recommend the maximum and operative rates of levy to be collected from woolgrowers to finance the activities of the Board; and consult with the Wool Board on the activities of the Board.

**7. Wool Levy.**—Legislation between 1936 and 1952 provided for a direct levy upon woolgrowers' returns for wool promotion and research. Details of these Acts have been given in Official Year Book No. 48, page 978.

In 1957, new *Wool Tax Acts* were passed to provide for the collection of a contribution for wool research as part of the levy on woolgrowers. The wool levy thus became a composite charge consisting of the wool promotion levy (i.e. the amount collected for wool promotional purposes), which was left unchanged at 4s. a bale, and the wool research levy, which was fixed at 2s. a bale.

In 1960, the wool promotion levy was raised to 5s. a bale, and the following year amending legislation set the levy for 1961-62 at 10s. a bale. However, the operation of this rate was subsequently extended for the year 1962-63. The wool research levy has remained unchanged at 2s. a bale since 1957.

The imposition and collection of the wool levy is governed by three complementary Acts, the *Wool Tax Acts (Nos. 1 and 2)* 1957-1962 and the *Wool Tax Assessment Act* 1936-1962.

**8. Wool Production.**—(i) *General.* Wool as shorn from the sheep contains an appreciable amount of grease, dirt and other extraneous matter, and is termed "greasy wool". The quantity of grease and other matter in a fleece differs not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, and with the breed and the condition of the sheep.

To allow for this factor, the weight of greasy wool is sometimes given on a "clean" basis, i.e. minus the estimated amount of impurities. The net wool fibre content of greasy wool, expressed as a percentage, is termed "clean yield".

From 1946-47 to 1952-53, the Australian Wool Realization Commission, and from 1953-54, the Wool Statistical Service, have assessed annually the clean yield of the Australian wool clip. During the period of assessment, the clean yield has shown a continuous rise up to 1951-52, when it reached 57.5 per cent. It has since fluctuated between 55.8 per cent. and 57.7 per cent.

Wool scoured, washed and carbonized in Australia before export, however, has a clean yield somewhat lower than for the whole clip, because the grade of greasy wool treated locally for export as scoured, washed or carbonized includes a large proportion of dirty and low-grade wool. In recent years, it has approximated 54 per cent. The quantity of this wool exported during 1961-62 was about 12 per cent. of the total raw wool exports (excluding wool exported on skins) in terms of greasy.

For the clean yield of Australian scoured wools, a standard factor of 93 per cent. is taken.

(ii) *Production.* The production of wool in the States and Territories varies broadly in accordance with the number of sheep depastured and with seasonal conditions which affect clip per head (see para. 8 (iii), p. 1069). In general, however, South Australia obtains from its large-framed merinos a much heavier fleece per sheep than the Australian average, while Tasmania generally obtains from its predominantly non-merino flocks a lighter fleece per sheep. In addition, as a result of better management (improved pastures, fodder conservation, better breeding, control of diseases, etc.), the long-term trend has been towards higher fleece weights.

The following table shows details of total wool (i.e. shorn, dead and fellmongered, and exported on skins) produced by each of the States and Territories during the years 1957-58 to 1961-62 compared with averages for the three-year periods ended 1938-39, 1948-49 and 1958-59. A graph showing the production of wool in relation to sheep numbers from 1870 onwards appears on page 1062.

#### PRODUCTION OF WOOL (IN TERMS OF GREASY) (<sup>000</sup> lb.)

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
<b>Average for three years ended—</b>									
1938-39 ..	478,595	169,256	169,325	88,699	73,141	15,728	35	1,822	996,601
1948-49 ..	439,363	200,229	151,679	108,126	95,031	16,272	305	1,927	1,012,932
1958-59 ..	633,938	298,302	217,062	187,225	160,402	30,141	277	2,371	1,529,718
<b>Year—</b>									
1957-58 ..	557,287	296,490	204,375	185,843	158,281	29,154	291	2,133	1,433,854
1958-59 ..	684,184	298,844	219,148	186,842	166,522	32,605	195	2,522	1,590,862
1959-60 ..	715,445	322,999	236,196	198,289	170,442	33,565	165	2,899	1,680,000
1960-61 ..	664,276	322,011	235,590	177,413	191,353	31,834	157	2,471	1,625,105
1961-62 ..	701,168	330,716	230,333	206,985	192,155	34,443	98	2,645	1,698,543

The bulk of the Australian wool production (about 91 per cent. in recent years) is shorn from live sheep. The remainder is obtained by fellmongering (about 2 per cent.), or is exported on skins (about 7 per cent.). The following table shows details of total wool production according to method of obtaining wool, and also the gross value of wool produced. Gross value is based, for shorn wool, upon the average price realized for greasy wool sold at auction, and, for skin wools, on prices recorded by fellmongers and skin exporters.

**QUANTITY (IN TERMS OF GREASY) AND VALUE OF WOOL PRODUCED:  
AUSTRALIA**

Period	Shorn (incl. crutchings)	Dead and fell- mongered	Exported on skins	Total production	
				Quantity	Value
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	£'000
Average for three years ended—					
1938-39.. .. .	889,338	49,280	57,983	996,601	53,425
1948-49.. .. .	902,007	50,660	60,265	1,012,932	152,536
1958-59.. .. .	1,411,424	36,804	81,490	1,529,718	394,145
Year—					
1957-58.. .. .	1,319,941	30,894	83,019	1,433,854	363,406
1958-59.. .. .	1,456,759	41,795	92,308	1,590,862	311,415
1959-60.. .. .	1,529,362	38,894	111,744	1,680,000	389,761
1960-61.. .. .	1,472,092	37,473	115,540	1,625,105	340,431
1961-62.. .. .	1,546,318	36,160	116,065	1,698,543	372,554

(iii) *Average Fleece Weight.* The average weights of sheep and lamb fleeces shorn in each of the States of Australia and in the Australian Capital Territory are shown in the following table for each season 1957-58 to 1961-62.

**AVERAGE WEIGHT OF FLEECES SHORN (SHEEP AND LAMBS)  
(lb.)**

State	1957-58	1958-59	1959-60	1960-61	1961-62
<b>SHEEP</b>					
New South Wales .. .. .	8.45	9.88	10.10	9.48	10.06
Victoria .. .. .	9.69	9.47	10.06	10.24	10.17
Queensland .. .. .	8.93	9.75	10.09	9.93	9.89
South Australia .. .. .	11.60	11.87	12.31	12.12	12.86
Western Australia .. .. .	10.54	10.49	10.32	11.02	10.90
Tasmania .. .. .	9.38	9.37	9.10	8.89	9.39
Australian Capital Territory..	8.28	10.41	10.51	9.18	9.87
Australia(a) .. .. .	9.30	10.03	10.31	10.12	10.41
<b>LAMBS</b>					
New South Wales .. .. .	2.75	3.08	3.22	3.31	3.30
Victoria .. .. .	2.71	2.70	2.73	2.96	2.92
Queensland .. .. .	3.76	3.84	3.95	4.06	3.89
South Australia .. .. .	3.37	3.52	3.39	3.55	3.81
Western Australia .. .. .	2.77	2.60	2.56	2.84	2.84
Tasmania .. .. .	2.40	2.31	2.13	2.30	2.23
Australian Capital Territory..	1.19	1.45	1.56	1.56	1.66
Australia(a) .. .. .	2.91	3.03	3.10	3.27	3.25

(a) Excludes Northern Territory.



(iv) *Classification of Wool According to Quality.* The following table provides a detailed analysis of wool sold at auction, according to quality, for the years 1957-58 to 1961-62. These data are compiled by the Wool Statistical Service on the basis of catalogues of auction sales. "Quality" ("64's, 60's, 58's," etc.) is a measure of the fineness and texture of wool for spinning purposes. Broadly, it means the maximum number of hanks of yarn, each of 560 yards length, which can be spun from 1 lb. of combed wool. For instance, wool of 64's quality is of a fineness and texture which will produce 64 hanks, each of 560 yards, from 1 lb. of tops (combed wool) of that particular wool.

**CLASSIFICATION OF GREASY WOOL SOLD AT AUCTION(a): AUSTRALIA**  
(Bales of approximately 300 lb.)

Pre-dominating quality	1957-58		1958-59		1959-60		1960-61		1961-62	
	Quantity	Per cent.	Quantity	Per cent.	Quantity	Per cent.	Quantity	Per cent.	Quantity	Per cent.
70's and finer	114,188	2.7	112,966	2.5	113,234	2.4	122,534	2.7	115,434	2.4
64/70's ..	609,897	14.3	442,019	9.5	453,823	9.5	462,764	10.0	381,683	8.0
64's ..	696,064	16.4	607,653	13.1	659,126	13.8	633,919	13.8	572,549	12.1
64/60's ..	392,940	9.2	477,054	10.3	506,001	10.6	451,905	9.8	475,487	10.0
60/64's ..	847,824	19.9	1,021,139	21.9	1,071,961	22.4	947,627	20.5	1,048,912	22.1
60's and 60/58's ..	645,112	15.2	837,338	17.9	839,919	17.5	829,601	18.0	915,501	19.3
Total, 60's and finer	3,306,025	77.7	3,498,169	75.2	3,644,064	76.2	3,448,350	74.8	3,509,566	73.9
58's ..	435,436	10.2	519,238	11.2	491,277	10.3	555,237	12.0	578,588	12.2
56's ..	297,662	7.0	363,968	7.8	375,391	7.9	354,287	7.7	383,238	8.1
50's ..	116,329	2.7	149,356	3.2	152,056	3.2	140,457	3.0	146,657	3.1
Below 50's ..	38,514	0.9	44,292	1.0	46,429	1.0	43,552	0.9	49,875	1.1
Oddments ..	65,348	1.5	74,385	1.6	68,202	1.4	73,246	1.6	75,708	1.6
<b>Grand Total</b>	<b>4,259,314</b>	<b>100.0</b>	<b>4,649,408</b>	<b>100.0</b>	<b>4,777,419</b>	<b>100.0</b>	<b>4,615,129</b>	<b>100.0</b>	<b>4,743,632</b>	<b>100.0</b>

(a) All greasy wool sold at auction except "wool re-offered account buyer".

9. *Price and Value.*—(i) *Price.* During 1961-62, the price of greasy wool sold in the selling centres of Australia averaged 54.1d. per lb. compared with the average price of 52.1d. per lb. in 1960-61 and 57.8d. in 1959-60.

The prices quoted above, except for United Kingdom contract prices, are as compiled by the National Council of Wool Selling Brokers and represent the average price realized for all greasy wool, of whatever type or quality, marketed during the years indicated.

(ii) *Value.* Fluctuation in Australian wool prices has a marked effect on the nation's rural and national income. In 1945-46, the gross value of wool production was £58,597,000, representing 17.4 per cent. of the gross value of production of all rural industries, while in 1950-51, when prices reached a peak, wool was valued at £651,902,000 or 55.6 per cent. of the total value of production for all rural industries. The value of wool production fell in subsequent years even though the quantity produced increased substantially, and in 1961-62 was £372,554,000. This figure represented 27.2 per cent. of the gross value of production of rural industries.

Details of the value of wool production for the years 1957-58 to 1961-62 are shown in the following table.

**ESTIMATED GROSS VALUE OF TOTAL WOOL PRODUCTION(a)**  
(£'000)

Season	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.(b)	A.C.T.	Aust.
1957-58 ..	143,337	76,255	53,836	42,354	39,209	7,742	67	606	363,406
1958-59 ..	134,764	59,471	45,075	33,797	30,915	6,844	36	513	311,415
1959-60 ..	168,112	75,952	54,573	42,691	39,334	8,254	35	810	389,761
1960-61 ..	138,881	69,265	50,859	35,242	38,312	7,229	29	614	340,431
1961-62 ..	154,920	74,219	50,637	42,900	41,260	7,876	18	724	372,554

(a) Includes shorn, dead and fellmongered wool and wool exported on skins.

(b) Estimated.

10. **Stocks of Wool.**—Stocks of raw wool held in Australia at 30th June, 1962, amounted to 232.7 million lb. (greasy basis), of which 58.0 million lb. (37.1 million lb. as greasy and 20.9 million lb. as scoured and carbonized) were held by woollen mills, wool scourers and fellmongers, and 174.7 million lb., assumed to be all greasy, were held by brokers. Of the wool held by brokers, 58.3 million lb. were unsold wool and 116.4 million lb. were sold wool held awaiting shipment. These stocks exclude wool on skins, since this wool is not recorded as production until fellmongered in Australia or exported on skins.

11. **Consumption of Wool.**—(i) *Consumption of Raw Wool.* Statistics of raw wool consumption published in recent years for the purposes of broad international comparisons are based on the quantities of scoured or carbonized wool used on the woollen and worsted systems (mill consumption), plus quantities used in such processes as felting. Consumption estimates compiled on this basis have obvious defects, as they disregard oversea trade in semi-processed wool (e.g. tops and yarns) as well as woollen goods. Estimates of raw wool used on the woollen and worsted systems and by felt manufacturers in Australia are shown in the following table for the years 1957–58 to 1961–62.

ESTIMATED CONSUMPTION OF RAW WOOL IN AUSTRALIA  
(’000 lb.)

Year	Greasy basis			Clean basis		
	Used on woollen and worsted systems	Used for felt manufacture (including hats)	Total	Used on woollen and worsted systems	Used for felt manufacture (including hats)	Total
1957–58 ..	103,704	4,480	108,184	63,153	2,128	65,281
1958–59 ..	103,180	3,992	107,172	62,834	1,896	64,730
1959–60 ..	123,529	5,092	128,621	75,226	2,419	77,645
1960–61 ..	104,801	3,896	108,697	63,414	1,851	65,265
1961–62 ..	111,330	3,608	114,938	67,365	1,714	69,079

(ii) *Consumption of Locally Processed Wool.* As considerable quantities of tops, noils and yarn are exported from Australia, the series on raw wool consumption shown above is over-stated to this extent. The series entitled “Estimated Consumption of Locally Processed Wool in Australia” provides a more reliable indication of wool consumption in Australia, as allowance has been made for exports of wool in semi-processed form. This series is shown in the following table for the years 1957–58 to 1961–62. Briefly, the series measures consumption of wool in terms of yarn used in Australian mills and other factories to produce woollen cloth and other woollen goods, yarn used for hand knitting purposes, and scoured wool used for felt manufacture. No allowance has been made for oversea trade in woollen piece goods, clothing, etc., because of the obvious difficulties of estimating accurately the wool content of these products.

ESTIMATED CONSUMPTION OF LOCALLY PROCESSED WOOL IN AUSTRALIA  
(’000 lb.)

Year	Greasy basis				Clean basis			
	Worsted yarn used (a)(b)	Woollen yarn used (b)	Scoured wool used for felt manufacture (including hats)	Total	Worsted yarn used (a)(b)	Woollen yarn used (b)	Scoured wool used for felt manufacture (including hats)	Total
1957–58 ..	40,716	32,288	4,480	77,484	24,201	20,253	2,128	46,582
1958–59 ..	37,972	29,272	3,992	71,236	22,811	18,520	1,896	43,227
1959–60 ..	44,314	36,327	5,092	85,733	26,390	22,723	2,419	51,532
1960–61 ..	40,315	32,268	3,896	76,479	24,516	20,034	1,851	46,401
1961–62 ..	41,030	29,641	3,608	74,279	24,307	18,400	1,714	44,421

(a) Includes hand knitting yarns used.  
of wool and other fibres.

(b) Includes wool content of yarns containing a mixture

12. **Exports of Wool.**—(i) *Quantities.* (a) *Greasy.* Of the total shipments in 1961–62, 31 per cent. went to Japan, 15 per cent. to the United Kingdom, 11 per cent. to Italy, 10 per cent. to France and 8 per cent. to Belgium-Luxembourg. The following table shows the quantities of greasy and slipe wool exported, and the principal countries of consignment.

### EXPORTS OF GREASY AND SLIPE WOOL: AUSTRALIA

('000 lb. actual weight)

Country of consignment	1957–58	1958–59	1959–60	1960–61	1961–62
United Kingdom .. ..	251,305	305,888	266,297	217,318	207,675
Other Commonwealth countries ..	8,643	10,803	11,796	10,636	13,305
Japan .. ..	203,988	273,503	335,296	411,782	416,970
Italy .. ..	130,062	113,156	130,516	105,790	146,369
France .. ..	179,480	157,871	161,844	155,378	138,483
Belgium-Luxembourg .. ..	102,197	103,261	105,974	105,023	108,699
Germany, Fed. Rep. of .. ..	66,117	60,070	70,223	60,931	66,773
United States of America .. ..	21,235	28,299	24,323	17,234	35,024
Other foreign countries .. ..	119,279	134,138	188,081	175,048	194,837
<b>Total .. ..</b>	<b>1,082,306</b>	<b>1,186,989</b>	<b>1,294,350</b>	<b>1,259,140</b>	<b>1,328,135</b>

(b) *Scoured and Washed and Carbonized.* The exports of “scoured and washed” wool, whether carbonized or not, are shown in the following table according to principal countries of destination.

### EXPORTS OF WOOL—SCOURED AND WASHED AND CARBONIZED: AUSTRALIA

('000 lb. actual weight)

Country of consignment	1957–58	1958–59	1959–60	1960–61	1961–62
United Kingdom .. ..	19,525	24,597	24,661	20,234	15,344
Canada .. ..	3,901	4,803	5,375	5,339	5,470
Other Commonwealth countries ..	1,857	1,941	2,318	2,193	2,674
United States of America .. ..	13,575	14,815	14,482	19,345	20,564
Italy .. ..	7,405	7,117	8,668	7,691	9,640
Germany, Fed. Rep. of .. ..	12,252	8,692	9,406	8,470	8,267
Japan .. ..	720	4,325	4,345	6,105	7,055
France .. ..	6,205	3,732	3,842	4,659	5,089
Belgium-Luxembourg .. ..	2,734	1,754	1,855	1,504	1,566
Other foreign countries .. ..	20,068	18,775	25,574	21,732	23,635
<b>Total .. ..</b>	<b>88,242</b>	<b>90,551</b>	<b>100,526</b>	<b>97,272</b>	<b>99,304</b>

(c) *Tops, Noils and Waste.* Particulars of the exports of tops, noils and waste are shown in the following table.

### EXPORTS OF WOOL TOPS, NOILS AND WASTE: AUSTRALIA

('000 lb. actual weight)

Particulars	1957–58	1958–59	1959–60	1960–61	1961–62
<b>Tops .. ..</b>	<b>16,921</b>	<b>20,203</b>	<b>22,743</b>	<b>16,694</b>	<b>21,438</b>
<b>Noils .. ..</b>	<b>3,298</b>	<b>4,355</b>	<b>4,017</b>	<b>4,372</b>	<b>3,957</b>
<b>Waste—Soft wool .. ..</b>	<b>3,484</b>	<b>7,742</b>	<b>5,607</b>	<b>2,322</b>	<b>2,580</b>
<b>Hard wool .. ..</b>	<b>3,195</b>	<b>4,388</b>	<b>3,193</b>	<b>3,088</b>	<b>2,154</b>

(d) *Total Quantity of Exports.* The following table shows the estimated greasy and clean weights of exports of raw and semi-processed wool for the years 1957-58 to 1961-62. As the figures in the following table are in terms of "greasy" or "clean" basis, they differ from those in the preceding tables which represent actual weight shipped.

## EXPORTS OF WOOL—GREASY AND CLEAN BASES: AUSTRALIA

('000 lb.)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
<b>GREASY BASIS</b>					
Raw wool—					
Greasy and stipe .. ..	1,082,724	1,187,399	1,294,598	1,259,448	1,330,895
Scoured and washed and carbonized .. ..	164,019	169,021	186,217	182,668	186,041
Exported on skins .. ..	83,019	92,308	111,744	115,539	121,000
<i>Total .. ..</i>	<i>1,329,762</i>	<i>1,448,728</i>	<i>1,592,559</i>	<i>1,557,655</i>	<i>1,637,936</i>
Semi-processed wool—					
Tops .. ..	30,627	36,365	41,620	30,049	38,570
Yarn .. ..	158	128	89	340	453
<i>Grand Total .. ..</i>	<i>1,360,547</i>	<i>1,485,221</i>	<i>1,634,268</i>	<i>1,588,044</i>	<i>1,676,959</i>
<b>CLEAN BASIS</b>					
Raw wool .. ..	760,229	827,418	911,389	892,824	940,910
Semi-processed wool .. ..	18,364	21,690	24,841	17,890	22,973
<i>Total .. ..</i>	<i>778,593</i>	<i>849,108</i>	<i>936,230</i>	<i>910,714</i>	<i>963,883</i>

(ii) *Total Value of Exports.* The value of wool (other than wool on sheepskins) exported from Australia during 1961-62 was 36 per cent. of the total value of exports of merchandise of Australian origin, while the proportion for the five years ended 1961-62 averaged 38 per cent. The value for the five years ended 1961-62, together with the principal countries to which wool was exported, is shown in the following table.

## VALUE OF WOOL EXPORTS: AUSTRALIA(a)

(£'000)

Country of consignment	1957-58	1958-59	1959-60	1960-61	1961-62
United Kingdom .. ..	79,582	73,102	75,947	55,559	53,291
Other Commonwealth countries .. ..	8,026	7,762	9,567	9,097	11,857
Japan .. ..	74,301	68,923	95,626	105,918	114,566
Italy .. ..	41,709	28,181	38,556	27,097	38,527
France .. ..	52,831	34,162	40,040	35,125	32,451
Belgium-Luxembourg .. ..	24,592	15,417	20,733	15,916	20,294
Germany, Fed. Rep. of .. ..	22,130	16,479	19,774	18,343	17,457
United States of America .. ..	12,864	11,270	12,436	10,708	16,866
Other foreign countries .. ..	57,362	46,915	73,453	56,679	67,218
<i>Total .. ..</i>	<i>373,397</i>	<i>302,211</i>	<i>386,132</i>	<i>334,442</i>	<i>372,527</i>

(a) Excludes wool exported on sheepskins.

(iii) *United Kingdom Imports of Wool.* The position which Australia occupies in the supply of wool to the United Kingdom is indicated in the following statement of the quantities of wool imported into that country from the principal wool-producing countries during each year 1958 to 1962.

### WOOL(a): IMPORTS INTO UNITED KINGDOM

(Source: Board of Trade Accounts relating to Trade and Navigation of the United Kingdom)

('000 lb.)

Country of origin	1958	1959	1960	1961	1962
Australia .. ..	292,407	333,565	265,252	222,863	238,082
New Zealand .. ..	168,241	170,882	161,035	161,107	163,359
Argentina .. ..	29,088	55,022	54,587	57,477	62,622
South Africa, Republic of ..	52,594	64,883	48,405	45,585	39,560
Uruguay .. ..	23,353	15,096	20,587	49,393	26,966
Pakistan .. ..	9,835	11,371	14,881	13,367	15,178
Ireland, Republic of ..	10,905	14,643	12,864	15,077	14,822
France .. ..	18,727	23,689	12,143	11,817	11,724
India .. ..	12,882	14,071	12,129	10,884	8,791
Chile .. ..	15,061	10,864	11,652	15,676	8,670
Other countries .. ..	25,496	37,594	31,975	33,097	36,377
<i>Total Quantity</i> ..	<i>658,589</i>	<i>751,680</i>	<i>645,510</i>	<i>636,343</i>	<i>626,151</i>
<i>Total value (£'000 sterling)</i> ..	<i>134,001</i>	<i>146,801</i>	<i>134,347</i>	<i>127,700</i>	<i>123,799</i>

(a) Greasy, slipe, washed and scoured, and carbonized.

Australian wool represented 38 per cent. of the total quantity imported into the United Kingdom during 1962. New Zealand supplied 26 per cent., while the total quantity received from Commonwealth countries constituted 69 per cent. of all United Kingdom imports of wool.

13. *World Sheep Numbers, Wool Production and Trade.*—(i) *Numbers and Production.* The following table shows particulars of the woolled sheep numbers and total production of wool, in terms of greasy, in the principal wool-producing countries of the world, together with estimates of world production of merino, crossbred, and carpet type wool for the latest available years.

In 1961-62, Australia produced 30 per cent. of the world total of all types of wool, the share of all British Commonwealth countries combined representing approximately 45 per cent. The principal wool producers, other than Australia, were New Zealand with 10 per cent. of the world total, Argentina, 7 per cent., United States of America, 6 per cent., and Republic of South Africa, 6 per cent. Production in the U.S.S.R., China and eastern European countries together amounted to 20 per cent. World production of wool (all types) in 1961-62 exceeded the pre-war average for the years 1934 to 1938 by approximately 1,925 million lb. or 51 per cent.

Australia's wool clip is predominantly merino. New Zealand and Argentina produce mainly crossbred wool, while the clip of the U.S.S.R. is largely of the carpet type. World production of merino wool in 1961-62 was 45 per cent. above the average for the years 1934 to 1938, and the production of crossbred types has risen by about 66 per cent. Carpet wool production has risen by about 35 per cent.

## ESTIMATED WORLD WOOLLED SHEEP NUMBERS AND PRODUCTION OF WOOL

(Source: Reports published by Commonwealth Economic Committee)

Country	Sheep numbers (million)			Wool production (million lb.— in terms of greasy)		
	1959-60	1960-61	1961-62 (a)	1959-60	1960-61	1961-62 (a)
British Commonwealth—						
Australia .. ..	155	153	158	1,680	1,625	1,699
New Zealand .. ..	47	49	49	577	588	587
Other Commonwealth countries .. ..	80	80	82	261	259	269
Total .. ..	282	282	289	2,518	2,472	2,555
Foreign—						
U.S.S.R., China, eastern Europe(b) .. ..	240	236	240	1,113	1,120	1,144
Argentina .. ..	48	46	46	423	431	413
United States of America .. ..	33	33	31	319	323	320
South Africa, Republic of(c) .. ..	34	34	34	319	317	337
Uruguay .. ..	22	22	22	159	181	185
Other foreign countries .. ..	259	259	258	774	759	759
Total .. ..	636	630	631	3,107	3,131	3,158
Grand Total .. ..	918	912	920	5,625	5,603	5,713
Type of Wool—						
Apparel type—						
Merino .. ..	..	..	..	2,317	2,266	2,344
Crossbred .. ..	..	..	..	2,033	2,064	2,093
Carpet type .. ..	..	..	..	1,275	1,273	1,276

(a) Provisional. (b) Comprises Albania, Bulgaria, China and Dependencies, Czechoslovakia, Eastern Germany, Hungary, Mongolia, Poland, Romania, Tibet and U.S.S.R. (c) Basutoland and S.W. Africa Territory are excluded from sheep numbers but included in wool production.

(ii) *Principal Importing Countries and Sources of Supply.* The following table, prepared from information published by the Commonwealth Economic Committee, furnishes, in respect of the principal importing countries, details of their production and imports of wool for 1961 together with the chief sources of supply. The quantities imported refer to the actual weight of wool, without distinguishing between greasy and scoured, except in the case of the United States of America, where estimated clean content of raw wool is quoted.

## WOOL: PRINCIPAL IMPORTING COUNTRIES AND SOURCES OF SUPPLY, 1961

(Source: Information published by Commonwealth Economic Committee)

(Million lb.)

Importing country	Pro- duction of importing country (a)	Quantity imported from— (b)					Total imports
		Australia	New Zealand	Republic of South Africa	Argen- tina	Other countries	
United Kingdom .. ..	130	222.9	161.1	45.6	57.5	149.2	636.3
Japan .. ..	(c)	440.1	41.7	17.5	37.1	23.6	560.0
France .. ..	56	162.7	107.3	53.8	41.9	26.8	392.5
Italy .. ..	32	116.3	25.6	29.3	27.8	61.8	260.8
United States of America(d) .. ..	318	29.9	62.5	25.7	53.3	76.0	247.4
Belgium .. ..	(c)	115.6	44.9	7.4	24.5	35.3	227.7
Germany, Federal Re- public of .. ..	(c)	73.3	28.3	37.1	24.8	56.4	219.9

(a) Greasy basis, 1961-62. (b) Actual weight of greasy and scoured wool. (c) Not available. (d) Imports are in terms of estimated clean content of greasy and scoured wool. Actual weight of total United States of America imports was 335.4 million lb.

As a considerable transit trade exists between European countries, it must not be assumed that the whole of the imports recorded by these countries is retained for their own consumption. The countries chiefly concerned with the transit trade are the United Kingdom and Belgium.

## § 6. Pastoral Products: Meat

1. General.—(i) *Australian Meat Board.* The Australian Meat Board, consisting of representatives of producers, processors, exporters and the Commonwealth Government, is responsible for the control of all exports of Australian meat and meat products. Further information on the powers, etc., conferred on the Board under the *Meat Export Control Act 1935–1960* is given on page 801 of Official Year Book No. 40.

(ii) *United Kingdom Long-term Purchase Agreements.* Details of the long-term meat contracts with the United Kingdom Government from the outbreak of the 1939–45 War up to 30th June, 1952, and of the Fifteen Year Meat Agreement (1952–67) are given on page 710 of Official Year Book No. 41 and in earlier issues.

The Fifteen Year Meat Agreement (1952–67) between the United Kingdom and Australian Governments has as its objectives the promotion of meat production in Australia, enabling increased exports to be made to the United Kingdom, and the provision of a satisfactory market in the United Kingdom for such meat. It covers beef and veal, and mutton and lamb.

(iii) *Reversion to Private Trading.* Following the announcement in September, 1953, that the United Kingdom Ministry of Food would cease bulk purchasing of meat, arrangements were made between the Australian Meat Board and the Ministry for the reversion to private trading in the United Kingdom. The main features of the arrangements were given in previous issues of the Year Book (see No. 47, p. 960).

Details of the minimum prices operating in recent years under private trading agreements, and an outline of the Acts relevant to the administration of the scheme, appear in Official Year Book No. 48, page 973.

(iv) *Minimum Prices and Deficiency Payments.* From 1st October, 1955, until April, 1958, beef prices in the United Kingdom were consistently below the level of the guarantee and consequently Australia "earned" deficiency payments which enabled the Australian Meat Board to make substantial bounty payments on beef exported to the United Kingdom. The rates of payment made during the 1954–55 and 1955–56 seasons are given on pages 888–9 of Official Year Book No. 43 and those for 1956–57 on pages 920–1 of Official Year Book No. 44. No deficiency payments have been received for beef since 1956–57, but a deficiency payment was earned on lamb for the first time during the 1960–61 season, and as a result a bounty was paid at the rate of 2s. per carcass and ¾d. per lb. for piece lamb entered into cold stores for export to the United Kingdom during the period 1st August, 1961, to 28th April, 1962. A further deficiency payment was earned during the 1961–62 season.

For the 1962–63 lamb export season, the Australian Meat Board has guaranteed exporters a minimum price of 18d. per lb. f.o.b. on all lambs 36 lb. and under, shipped to the United Kingdom during the period September to November, 1962; and 16.5d. per lb. for the following three months, December to February. The higher guaranteed price for the initial period was aimed at stimulating early shipments, because normally the most opportune time for selling Australian lamb on the United Kingdom market is early in the export season. Any commitment by the Board is payable from moneys accrued in the Lamb Deficiency Payments Account under the Fifteen Year Meat Agreement.

(v) *"Chiller" Export Beef.* In 1958, a new "chiller" grade of export beef was introduced. Exporters of the new grade, whether exporting beef in the chilled or frozen form, received a bounty of 5d. per lb. The bounty on boneless piece beef was increased from 4d. to 5d. per lb., and that on certain classes of carcass piece beef from 3d. to 5d. per lb. The basic rate of 3d. per lb. was maintained for other 1st and 2nd quality quarter beef. The bounty payments were discontinued on 27th December, 1958, because of the relatively high prices being obtained in the United Kingdom.

2. **Beef and Veal.**—(i) *Cattle Slaughtered.* The numbers of cattle slaughtered during each of the years ended June, 1958 to 1962, compared with averages for the three-year periods ended June, 1939, 1949 and 1959, are shown in the following table.

**CATTLE (INCLUDING CALVES) SLAUGHTERED**  
(‘000)

Period	Slaughterings passed for human consumption									Total slaughtering including boiled down
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
Average for three years ended—										
1938–39 ..	1,169	881	1,178	163	131	49	5	3	3,579	3,628
1948–49 ..	1,094	759	1,119	168	146	42	14	4	3,346	3,378
1958–59 ..	1,745	1,313	1,689	274	216	116	24	11	5,388	5,463
Year—										
1957–58 ..	1,742	1,404	1,541	282	216	118	24	12	5,339	5,411
1958–59 ..	1,894	1,397	1,883	287	249	128	24	10	5,872	5,960
1959–60 ..	1,499	1,277	1,527	238	243	145	24	9	4,962	5,024
1960–61 ..	1,267	1,010	1,469	174	209	115	28	6	4,278	4,327
1961–62 ..	1,609	1,311	1,584	201	241	136	25	8	5,115	5,167

(ii) *Production of Beef and Veal.* Details of the production of beef and veal during each of the years ended June, 1958 to 1962, compared with averages for the three-year periods ended June, 1939, 1949 and 1959, are shown in the following table.

**PRODUCTION OF BEEF AND VEAL (CARCASS WEIGHT)**  
(‘000 tons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1938–39 ..	181	123	199	26	28	10	1	1	569
1948–49 ..	160	106	206	27	30	9	3	1	542
1958–59 ..	248	176	305	41	41	19	5	2	837
Year—									
1957–58 ..	233	181	270	41	39	20	5	2	791
1958–59 ..	275	189	328	42	45	20	5	2	906
1959–60 ..	217	159	267	33	46	23	5	2	752
1960–61 ..	168	125	247	27	42	17	6	1	633
1961–62 ..	234	176	278	30	47	20	4	2	791

(iii) *Consumption of Beef and Veal.* The highest post-war consumption of beef and veal was 132.7 lb. per head in 1956–57. With the buoyant overseas market for beef and the high prices ruling in Australia during the following four years, consumption per head fell substantially, and in 1960–61 amounted to only 88.3 lb. In 1961–62, there was a considerable rise in consumption per head to 95.8 lb., consisting of 92.9 lb. carcass weight and 2.9 lb. (carcass equivalent) of canned meat. There has been a marked substitution of mutton and lamb for beef in Australia since 1956–57.

The figures quoted in the preceding paragraph include the consumption of canned beef and veal, and differ on that account from the figures shown in the last column of the next table.



In the following table, details of the production and disposal of beef and veal are shown for the years 1957-58 to 1961-62, compared with the averages for the three years ended 1938-39, 1948-49 and 1958-59.

### PRODUCTION AND DISPOSAL OF BEEF AND VEAL (CARCASS WEIGHT): AUSTRALIA

('000 tons)

Period	Net change in stocks	Production	Exports (a)	For canning	Apparent consumption in Australia	
					Total	Per head per annum
Average for three years ended—						lb.
1938-39 .. ..	n.a.	569	121	18	430	140.3
1948-49 .. ..	+ 1	542	101	67	373	109.1
1958-59 .. ..	+ 5	837	209	85	538	123.8
Year—						
1957-58 .. ..	+ 4	791	155	88	544	125.1
1958-59 .. ..	+ 8	906	296	80	522	117.6
1959-60 .. ..	- 11	752	262	55	446	98.4
1960-61 .. ..	+ 4	633	190	43	396	85.4
1961-62 .. ..	+ 6	791	299	46	440	92.9

(a) Includes carcass equivalent of boneless beef exported and ships' stores.

(iv) *Exports of Beef and Veal.* In 1961-62, chilled beef exports were 1,623,000 lb. valued at £140,000, while frozen beef exports amounted to 443,139,000 lb. valued at £57,946,000.

While beef and veal were previously shipped largely in carcass form, there has been in recent years a substantial increase in the amount of boneless beef exported. From 1958-59 to 1961-62, the quantity of boneless beef shipped exceeded that exported in carcass form. The trade in boneless beef has been developed principally with the United States of America.

Since 1958-59, the United States has surpassed the United Kingdom as the principal market for Australian beef exports. The total value of beef and veal shipped to these two countries during 1961-62 was £45,895,000 and £7,765,000 respectively.

The quantity and value of Australian frozen beef and veal exported from Australia in each year 1957-58 to 1961-62 are shown in the following table. Figures in this table represent actual weight shipped, not carcass equivalent.

### EXPORTS OF FROZEN AND CHILLED BEEF AND VEAL: AUSTRALIA

Year	Exports of frozen and chilled beef		Exports of frozen veal	
	Quantity	Value	Quantity	Value
	'000 lb.	£A.'000 f.o.b.	'000 lb.	£A.'000 f.o.b.
1957-58 .. ..	276,607	20,961	5,397	609
1958-59 .. ..	499,371	54,154	10,869	1,331
1959-60 .. ..	414,749	54,568	6,827	897
1960-61 .. ..	295,686	39,447	4,506	663
1961-62 .. ..	444,762	58,086	5,834	754

3. **Mutton and Lamb.**—(i) *Sheep Slaughtered.* The following table shows the numbers of sheep slaughtered in the several States during each of the years ended June, 1958 to 1962, compared with averages for the three-year periods ended June, 1939, 1949 and 1959.

### SHEEP (INCLUDING LAMBS) SLAUGHTERED

('000)

Period	Slaughterings passed for human consumption									Total slaughtering including boiled down
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
Average for three years ended—										
1938-39 ..	6,520	7,891	1,088	1,762	1,216	364	..	25	18,866	18,925
1948-49 ..	6,367	6,413	1,066	1,863	1,458	396	3	47	17,613	17,650
1958-59 ..	7,857	9,058	1,429	2,917	2,059	775	3	71	24,169	24,278
Year—										
1957-58 ..	7,761	9,624	1,378	3,278	1,856	734	4	74	24,709	24,878
1958-59 ..	8,861	10,514	1,633	3,145	2,415	909	4	71	27,552	27,646
1959-60 ..	10,753	12,511	2,113	3,899	2,650	1,166	5	76	33,173	33,373
1960-61 ..	11,718	11,363	2,924	2,784	2,658	1,076	4	77	32,604	32,697
1961-62 ..	11,526	12,467	2,417	3,140	2,489	1,160	3	86	33,288	33,373

(ii) *Production of Mutton and Lamb.* Details of the production of mutton and lamb in each State and Territory in the years 1957-58 to 1961-62, compared with averages for the three-year periods ended June, 1939, 1949 and 1959, are shown in the following table.

### PRODUCTION OF MUTTON AND LAMB

(Tons)

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1938-39 ..	103,884	136,927	20,121	30,574	20,928	6,129	2	413	318,978
1948-49 ..	109,084	111,677	18,587	34,772	23,846	7,214	64	839	306,083
1958-59 ..	135,256	164,580	25,845	50,415	35,373	14,077	77	1,240	426,863
Year—									
1957-58 ..	127,800	169,107	24,381	53,681	31,942	13,221	90	1,254	421,476
1958-59 ..	156,020	193,379	29,286	55,001	40,875	16,403	93	1,269	492,326
1959-60 ..	184,600	223,519	35,886	62,760	44,385	20,780	111	1,292	573,333
1960-61 ..	196,417	210,245	48,529	52,242	46,560	18,925	98	1,292	574,308
1961-62 ..	196,844	229,722	40,339	55,390	42,697	20,229	65	1,427	586,713

(iii) *Consumption of Mutton and Lamb.* In 1959-60, consumption of mutton and lamb exceeded that of beef and veal for the first time on record. A small decline followed in 1960-61, when the amount of mutton and lamb consumed per head was estimated as 103 lb. There was a further decline in 1961-62 when the estimated consumption per head was 99 lb. This figure is still, however, about 3 lb. per head more than the consumption per head of beef and veal in 1961-62. Figures quoted in this paragraph include the consumption of canned mutton, and differ on that account from the figures in the last column of the table following.

The following table gives details of the production and disposal of mutton and lamb.

# **PRODUCTION AND DISPOSAL OF MUTTON AND LAMB (CARCASS WEIGHT): AUSTRALIA**

('000 tons)

Period	Changes in stock	Pro- duction	Exports (a)	For canning	Apparent consumption in Australia	
					Total	Per head per annum (lb.)

## **MUTTON**

Average for three years ended—									
1938-39	..	..	..	..	201	17	..	184	60.0
1948-49	..	..	..	..	177	15	8	154	45.1
1958-59	..	..	..	..	268	27	19	222	51.0
Year—									
1957-58	..	..	..	+1	270	23	25	221	50.7
1958-59	..	..	..	-3	310	49	19	245	55.1
1959-60	..	..	..	..	370	47	33	290	63.8
1960-61	..	..	..	+1	368	60	14	293	63.2
1961-62	..	..	..	+1	368	83	23	261	55.2

## **LAMB**

Average for three years ended—									
1938-39	..	..	..	..	118	72	..	46	15.0
1948-49	..	..	..	-1	130	45	..	86	25.2
1958-59	..	..	..	..	159	31	..	128	29.3
Year—									
1957-58	..	..	..	-1	152	29	..	124	28.4
1958-59	..	..	..	-1	182	41	..	142	31.9
1959-60	..	..	..	..	203	26	..	177	39.0
1960-61	..	..	..	+1	207	29	..	177	38.2
1961-62	..	..	..	-1	219	17	..	203	43.0

(a) Includes carcass equivalent of boneless mutton exported.

(iv) *Exports of Frozen Mutton and Lamb.* The quantities and values of exports of Australian frozen mutton and lamb in each year 1957-58 to 1961-62 are shown in the following table.

## **EXPORTS OF FROZEN MUTTON AND LAMB: AUSTRALIA**

Year		Exports of frozen mutton		Exports of frozen lamb		Exports of frozen mutton and lamb	
		Quantity	Value	Quantity	Value	Quantity	Value
		'000 lb.	£A.'000 f.o.b.	'000 lb.	£A.'000 f.o.b.	'000 lb.	£A.'000 f.o.b.
1957-58..	..	42,270	2,253	64,352	6,132	106,622	8,385
1958-59..	..	74,650	5,851	91,192	8,151	165,842	14,002
1959-60..	..	71,763	4,719	59,264	4,389	131,027	9,108
1960-61..	..	83,075	7,437	64,430	5,790	147,505	13,227
1961-62..	..	109,113	8,156	37,399	2,624	146,512	10,780

The principal customer for Australian frozen mutton and lamb was formerly the United Kingdom, although the United States of America has become a major buyer of mutton in recent years. In 1961-62, exports of mutton and lamb to the United Kingdom represented 15 per cent. and 71 per cent., respectively, of the total quantities exported. Forty-six per cent. of the mutton exported went to the United States of America, largely in the form of boneless meat, and the proportion of lamb exported to that country was seven per cent.

4. **Consumption of Meat and Meat Products.**—The apparent consumption per head of meat (including cured and canned meat) and edible offal in Australia is shown in the table below for the years 1957-58 to 1961-62 in comparison with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

**MEAT (INCLUDING CURED AND CANNED) AND EDIBLE OFFAL AVAILABLE FOR CONSUMPTION: AUSTRALIA**

(lb. per head per year)

Period	Beef and veal (a)	Mutton (a)	Lamb (a)	Pork (a)	Offal	Canned meat (b)	Bacon and ham (c)	Carcass equivalent of meat and meat products (d)
<b>Average of three years ended—</b>								
1938-39 ..	140.3	60.0	15.0	8.5	8.4	2.1	10.2	250.9
1948-49 ..	109.1	45.1	25.2	7.1	8.9	2.6	11.7	215.7
1958-59 ..	123.8	51.0	29.3	10.0	11.4	4.1	7.1	242.4
<b>Year—</b>								
1957-58 ..	125.1	50.7	28.4	10.8	11.8	4.5	7.0	244.6
1958-59 ..	117.6	55.1	31.9	10.6	12.1	4.7	7.2	245.0
1959-60 ..	98.4	63.8	39.0	10.3	11.6	4.1	7.1	238.6
1960-61 ..	85.4	63.2	38.2	11.4	10.9	4.2	6.8	224.2
1961-62 ..	92.9	55.2	43.0	13.1	11.2	3.9	7.0	231.5

(a) Carcass weight. offal.

(b) Canned weight.

(c) Cured carcass weight.

(d) Includes

## § 7. Other Pastoral Products

1. **Tallow.**—(i) *Marketing.* Reference is made in Official Year Book, No. 47, page 976, to the now inoperative contracts relating to the sale of tallow to the United Kingdom.

(ii) *Consumption in Factories.* Details of consumption are collected from the principal factories using tallow. Consumption of inedible tallow in these factories (soap and candle, chemical and woolscouring works) for the five years 1957-58 to 1961-62 was as follows:—1957-58, 1,280,984 cwt.; 1958-59, 1,216,668 cwt.; 1959-60, 1,278,546 cwt.; 1960-61, 1,196,137 cwt.; 1961-62, 1,077,627 cwt. These figures are, however, deficient to the extent that no allowance has been made for small unrecorded amounts used in other types of establishments. Details of edible tallow consumed in factories are not available.

(iii) *Exports.* Particulars of exports of edible and inedible tallow of Australian produce are shown in the following table for the five years 1957-58 to 1961-62.

**TALLOW: EXPORTS, AUSTRALIA**  
(cwt.)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Edible .. ..	116,986	73,056	118,848	50,436	130,012
Inedible .. ..	878,060	1,022,844	1,533,734	1,079,191	1,853,161
<b>Total .. ..</b>	<b>995,046</b>	<b>1,095,900</b>	<b>1,652,582</b>	<b>1,129,627</b>	<b>1,983,173</b>

2. **Oversea Trade in Hides and Skins.**—(i) *Values.* The value of cattle and horse hides, sheep and other skins, and skin pieces, sent overseas during 1961-62 amounted to £32,044,000, compared with a total of £27,077,000 in 1960-61 and £31,728,000 in 1959-60.

(ii) *Sheepskins with Wool.* Of the total exports of sheepskins with wool during 1961-62, amounting to 174,379,000 lb. valued at £24,208,000, 118,291,000 lb. valued at £16,071,000 (66 per cent. of total value) were shipped to France, 23,537,000 lb. valued at £3,735,000 (15 per cent.) to Italy, and 13,019,000 lb. valued at £1,613,000 (7 per cent.) to the United Kingdom. In the previous year, France received about 69 per cent. (by value) of all sheepskins with wool exported, Italy 11 per cent. and the United Kingdom 8 per cent. The exports of sheepskins with wool during each of the years 1957-58 to 1961-62 were as follows.

**EXPORTS OF SHEEPSKINS WITH WOOL: AUSTRALIA**

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Number .. .. '000	19,441	20,180	25,560	25,883	26,237
Value .. .. £'000	20,219	14,768	23,238	21,429	24,208

(iii) *Sheepskins without Wool.* Up to 1943-44, sheepskins without wool were exported chiefly to the United States of America which, during 1943-44, accounted for 97 per cent. of the total shipments. In subsequent years, however, there has been a decline in the proportion shipped to the United States of America which received 66 per cent. in 1958-59, but in 1959-60, 1960-61 and 1961-62 only 28, 11 and 33 per cent. respectively. In 1961-62, skins to the value of £77,402 (33 per cent.) were shipped to the United States of America; £75,141 (32 per cent.) to France; £30,183 (13 per cent.) to United Kingdom; and £12,094 (5 per cent.) to Italy. In 1961-62, a total of 803,000 sheepskins without wool were exported, valued at £231,000. Since 1954-55, the number exported has exceeded two million once only (in 1958-59), and the value has fluctuated about £350,000.

(iv) *Hides.* The export trade in cattle hides and calfskins during 1961-62 was distributed amongst the main importing countries as follows:—Japan, £3,559,000; Germany (Federal Republic), £316,000; United States of America, £287,000; Italy, £276,000; and United Kingdom, £169,000. The total quantity exported was 73,295,000 lb., valued at £5,379,000.

(v) *Furred Skins.* The exports of furred skins in 1961-62 were valued at £1,342,000, of which rabbit and hare skins constituted £900,000. This is considerably less than the highest total value of £2,013,000, recorded in 1955-56, when rabbit and hare skins accounted for £1,711,000. In 1960-61, they accounted for £954,000 out of a total of £1,479,000.

Skins were shipped principally to the United States of America, the United Kingdom, Italy, Belgium and Luxembourg, the values shipped to each in 1961-62 being:—United States of America, £956,000; United Kingdom, £182,700; Italy, £61,600; and Belgium-Luxembourg, £53,700.

Imports of cattle hides and calfskins are fairly substantial, the chief sources of supply being New Zealand and the Pacific Islands. The quantity of cattle hides, including calfskins, imported into Australia during the year 1961-62 amounted to 6,440,000 lb. valued at £636,000.

## OTHER RURAL INDUSTRIES: DAIRYING, POULTRY AND BEE-FARMING

## § 1. The Dairying Industry

1. Introduction.—(i) *General.* The introduction of cattle into Australia and the early history of the dairying industry are treated in some detail in earlier issues of this Year Book. It may be noted here that an increased and improved milk supply has resulted from the crossing of imported stud cattle with the original stock and from the further judicious crossing of strains. In Australia, dairy cattle thrive in the open throughout the year, local climatic conditions demanding no protection other than tree plantations for shelter and, in certain districts, rugging in the coldest weather. Indigenous and imported grasses furnish feed during the greater part of the year, and winter fodder, when necessary, is given to the cattle in the open. With the wider application of scientific methods in the treatment of animals and pastures and in the processes of manufacture, coupled with herd testing and effective State supervision, the dairying industry has shown rapid expansion. It has been demonstrated that Australian production and marketing methods do not adversely affect the vitamin content of the butter and that the losses during cold storage even for as long as two years are insignificant. This aspect has important implications for butter marketed overseas.

Apart from the specialized dairy farms, which are centred mainly in the wetter coastal areas, dairying is carried on extensively in mixed farming areas. Originally, dairying on mixed farms was conducted mainly in conjunction with agriculture, but in more recent times it has been combined with various types of grazing. In regions further inland, it is generally conducted in association with agriculture and sheep-raising. The extent to which dairy cattle were run in conjunction with beef cattle, sheep, and pigs in 1959–60 is shown in the relevant tables published in a series of bulletins *Classification of Rural Holdings by Size and Type of Activity*, 1959–60.

(ii) *Official Supervision.* Dairy experts of the various State agricultural departments give instruction in approved methods of production, and inspect animals, buildings and marketable produce, with the result that a high standard of cleanliness prevails in the industry.

The export trade is regulated by the terms of the *Commonwealth Customs Act* 1901–1954 and the *Commonwealth Commerce (Trade Descriptions) Act* 1905–1950, and regulations thereunder. This legislation requires that the true trade description, etc., be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter, the goods are given a certificate by the inspector.

(iii) *Marketing of Dairy Products.* (a) *Dairy Produce Export Control Act* 1924–1962. Details of this Act, and of the Australian Dairy Produce Board constituted under it, were given in previous issues of the Official Year Book (see No. 48, pp. 999–1000).

(b) *Dairy Produce Export Charges Act*, 1962. This Act provides for the imposition of a levy on all butter, cheese and other specified dairy produce exported from Australia to cover the administrative expenses of the Australian Dairy Produce Board and for advertising and other purposes. The rate of the levy is fixed by the Act.

(iv) *Equalization Schemes.* (a) *Butter and Cheese.* Reference is made to these schemes in Official Year Book No. 48, pp. 998–9.

Details are given in para. 2 (ix) on page 1093 of the returns realized on local and overseas sales and of the average equalization rate for the years ended June, 1958 to 1962. Details are also given in para. 2 (vii) of the wholesale prices of butter and cheese for home consumption as determined by the Commonwealth Dairy Produce Equalization Committee Ltd.

(b) *Casein.* An equalization scheme for casein similar to that for butter and cheese has been operated by the Commonwealth Dairy Produce Equalization Committee Ltd. since 1952. Average realizations per cwt. under the scheme were 185s. 3.6d. in 1957–58, 171s. 7.9d. in 1958–59, 175s. 7.5d. in 1959–60 and 174s. 10.9d. in 1960–61. The interim equalization value for 1961–62 has been fixed at 163s. 0d. and for 1962–63 at 153s. 0d. per cwt.

(v) *Commonwealth Subsidies and Stabilization Plans.* (a) *Butter, Cheese and Processed Milk Products.* Under the provisions of the various *Dairy Industry Assistance Acts*, the first of which was passed in 1942, the Commonwealth Government has provided subsidies

on milk supplied for the manufacture of butter and cheese. Subsidies were paid on a seasonal basis prior to 1st April, 1946, but from that date have been on a flat rate basis. Subsidies are distributed by the Commonwealth Dairy Produce Equalization Committee Ltd. through factories to milk producers by payments on butter and cheese manufactured. Subsidy on milk supplied for the manufacture of processed milk products was also payable from 1942 until 30th June, 1948, and again from 1st July, 1949, to 30th June, 1952. The Commonwealth Government has provided, under the *Processed Milk Products Bounty Act* 1962, for the payment of a maximum amount of £350,000 as a bounty on exports of processed milk products in 1962-63.

The first of the three five-year stabilization plans came into operation on 1st July, 1952. Under this plan, the Commonwealth Government, with the approval of the States, determined the ex-factory prices of butter and cheese, guaranteed to dairy farmers a return, based upon costs of efficient production, in respect of quantities of butter and cheese sold within Australia, plus an additional 20 per cent. (if produced), and agreed to make available an amount by way of subsidy to lift the return on that part of output covered by the guarantee to the guaranteed level. The second five-year stabilization plan, which came into operation on 1st July, 1957, continued all the important features of the first plan. A new feature, however, was that any subsidy made available under the scheme should be a fixed amount in any dairy year.

The actual amount of subsidy paid by the Commonwealth Government was in excess of its original commitment in 1955-56, when, to assist in offsetting a fall in export returns, the Government agreed to increase subsidy payments to £14,500,000. In each of the years 1956-57 to 1961-62, £13,500,000 was provided.

In 1958, following a period of low incomes due to drought and low export returns, the Government decided to give additional support to the dairy industry. This support took the form of underwriting a final equalization payment to factories on total production of butter and cheese for the 1958-59 season. The amount underwritten for butter was 40d. per lb. commercial butter basis. The Government also decided that it would consider applying the same principle of underwriting a final equalized return at levels determined by it each year, after an examination of all relevant factors for the remaining period of the 1957-62 five-year stabilization plan. For the 1959-60, 1960-61 and 1961-62 seasons, the underwriting of a final minimum return of 40d. per lb. commercial butter was again determined. The principal value underlying this guarantee is that it enables the Commonwealth Dairy Produce Equalization Committee Ltd. to make a higher initial payment to factories than would otherwise be possible without risk of over-payment.

Following representations by industry organizations, the Commonwealth Government, in November, 1946, established the Joint Dairy Industry Advisory Committee comprising a chairman nominated by the Government, four representatives of Commonwealth Government departments and four industry representatives from the several States. The Committee's functions, broadly, were to advise and assist in conducting cost and other surveys of dairy farm production and to act as an advisory body to the Government in these matters. From 1st April, 1947, to 30th June, 1952, the rates of overall return to milk producers determined by the Commonwealth Government for the purpose of subsidy payments were based on recommendations made by the Committee following surveys of production costs in the dairy industry.

Early in 1953, the Dairy Industry Investigation Committee, an independent body consisting of three members, was appointed to advise the Commonwealth Government on the guaranteed return to producers during 1953-54. The Committee was re-established in March, 1954, to advise the Government on the guaranteed return for each year of the remaining three-year period of the Stabilization Plan. For the second five-year plan, the Committee was re-appointed to determine the cost of efficient production of butter-fat only.

Several new features have been introduced into the third Five-Year Stabilization Plan, which came into operation on 1st February, 1962. These are as follows:—a fixed bounty of £13,500,000 will be provided for each year of the plan; the Dairy Industry Investigation Committee has been disbanded; the Australian Dairy Industry Council assumes responsibility for determining local prices of butter and cheese instead of the Minister for Primary Industry as previously; products containing 40 per cent. or more of butter-fat will be eligible for bounty payment provided they are taken into the Equalization Pool.

Amounts realized on exports of butter and cheese in excess of the f.o.b. equivalent of the guaranteed return have been credited to the Dairying Industry Stabilization Fund, which was established in July, 1948, for the purpose of stabilizing returns from exports. During 1951-52, the Stabilization Fund met the deficiency in respect of all exports which did not return sufficient to meet the basic return to the factory. From 1st July, 1952, to 30th June, 1957, it was available to the industry to be used, in whatever manner it considered desirable, to make good any deficiency in respect of all exports other than the 20 per cent. provided for under the Commonwealth Government's Five-year Stabilization Plan. The Act was amended in 1957 to enable the Board to use the fund for such other purposes as are approved by the Minister for Primary Industry. After allowing for outstanding debits, the amount standing to the credit of the Dairying Industry Stabilization Fund at 30th June, 1962, totalled approximately £1,945,000.

(b) *Whole Milk.* In addition to the subsidies referred to above, the Commonwealth Government subsidized the production of whole milk consumed directly from 1943-44 to 1948-49. Details of the amounts distributed during each year will be found in Official Year Book No. 38, page 1031.

(vi) *Extension, Research and Promotion.* (a) *Dairy Industry Extension Grant.* An annual grant of £250,000, to be expended by State Governments for the purpose of promoting improved farming practices in the dairying industry, was first made by the Commonwealth Government for the five years from 1st July, 1948. This assistance was continued for further periods of five years from 1st July, 1953, and from 1st July, 1958, at the same rate. For the five years from 1st July, 1963, the amount of the annual grant has been increased to £350,000.

(b) *Dairy Industry Research and Sales Promotion.* At the request of the Australian Dairy Industry Council, legislation was enacted in 1958 to provide for a sales promotion campaign for butter and cheese in Australia and also for research into industry problems. The legislation provides for a statutory levy (the Dairy Produce Levy) to be imposed on all butter and cheese manufactured in Australia. The maximum rates of levy are  $\frac{1}{8}$  d. per lb. on butter and  $\frac{3}{8}$  d. per lb. on cheese, but the initial rates which commenced in November, 1958, were  $\frac{1}{8}$  d. per lb. on butter and  $\frac{1}{8}$  d. per lb. on cheese. Until November, 1959, the proceeds from the levy were divided equally between research and sales promotion, but after that date one-third was allocated to research and two-thirds to sales promotion. The rates of levy operative from November, 1959, were increased to the maximum provided under the Act, the increase being utilized solely for the purposes of intensifying the sales promotion campaign.

The Commonwealth Government agreed to contribute one half of the costs incurred on approved projects included in the programme of research, with a maximum contribution of £1 for £1 against funds raised by way of levy and allocated to research. The sales promotion programme is financed solely by the levy. The following table lists the amounts of levies collected, and the amounts allocated to research and sales promotion, during the four years 1958-59 to 1961-62.

#### DAIRY PRODUCE LEVY: AMOUNTS COLLECTED AND ALLOCATED

(£)

Particulars	1958-59	1959-60	1960-61	1961-62
Allocated to—				
Research(a) .. ..	75,447	126,519	116,591	130,000
Sales promotion .. ..	75,447	206,918	233,181	260,000
<b>Total Collected(a) ..</b>	<b>150,894</b>	<b>333,437</b>	<b>349,772</b>	<b>390,000</b>

(a) Excludes amounts contributed by the Commonwealth Government.

The scheme is administered by the Australian Dairy Produce Board, which, in respect of research, is advised by a statutory committee, the Dairy Produce Research Committee.



2. **Dairy Cattle and Dairy Products.**—(i) *Dairy Herds.* Lack of uniformity in the forms used by the various States in the collection of livestock statistics makes it impossible to measure with complete accuracy the growth of dairy herds prior to 1943. Statistics of dairy cows—which form the largest part of herds—are, however, available on a comparable basis for a much longer period of years. The number of dairy cows in Australia at 31st March, 1962, was 3,229,587, compared with 3,162,449 in the previous year. A record level of 3,451,450 was attained in 1957.

There is a preponderance of dairy cattle in Victoria and Tasmania, while in New South Wales and South Australia the proportion of dairy to all cattle is high. In Queensland, the Northern Territory, and Western Australia, other cattle predominate, the main use of cattle in these areas being for the production of beef. The numbers of dairy cattle in Australia are shown in the following tables.

#### NUMBER OF DAIRY CATTLE: AUSTRALIA

Period	Dairy cows (in milk and dry)	Dairy heifers 1 year and over	Dairy calves under 1 year	Dairy bulls	Total dairy cattle
Average for three years ended 31st March—					
1939 .. .. .	3,210,324	n.a.	n.a.	n.a.	n.a.
1949 .. .. .	3,133,266	827,609	712,688	107,708	4,781,271
1959 .. .. .	3,365,390	839,048	670,956	110,656	4,986,050
Year ended 31st March—					
1958 .. .. .	3,361,574	851,407	667,836	112,892	4,993,709
1959 .. .. .	3,283,147	830,116	628,710	104,317	4,846,290
1960 .. .. .	3,243,472	781,862	752,107	99,925	4,877,366
1961 .. .. .	3,162,449	857,642	776,829	103,852	4,900,772
1962 .. .. .	3,229,587	875,103	836,882	104,543	5,046,115

The following table shows the total dairy cattle in each State and the Australian Capital Territory for the same periods as in the previous table, except that details for 1939 are not available.

#### NUMBER OF DAIRY CATTLE: STATES

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Average for three years ended 31st March—								
1949 .. .. .	1,289,846	1,467,100	1,379,172	272,073	226,340	143,809	2,931	4,781,271
1959 .. .. .	1,307,834	1,699,301	1,295,141	257,569	221,694	201,383	3,128	4,986,050
Year ended 31st March—								
1958 .. .. .	1,307,567	1,723,845	1,269,969	258,798	225,651	204,773	3,106	4,993,709
1959 .. .. .	1,281,726	1,653,493	1,240,779	248,425	215,369	203,482	3,016	4,846,290
1960 .. .. .	1,278,051	1,678,359	1,255,009	239,603	216,508	206,770	3,066	4,877,366
1961 .. .. .	1,280,823	1,716,840	1,213,391	247,556	224,273	214,382	3,507	4,900,772
1962 .. .. .	1,271,797	1,823,835	1,208,177	274,418	235,631	228,637	3,620	5,046,115

Maps showing the distribution of dairy cattle in Australia at 31st March, 1955 and 1948, appear on page 910 of Official Year Book No. 43 and page 906 of Official Year Book No. 39, respectively.

(ii) *Growth of the Dairying Industry.* The following table gives some indication of the growth of some features of the dairying industry since 1916-17.

### DAIRYING INDUSTRY: AUSTRALIA

Period	Number of dairy cows at 31st March			Production of—			Milking machines (no. of units)(a)
	In milk	Dry	Total	Whole milk for all purposes	Butter (factory and farm)	Cheese (factory and farm)	
Average for three years ended—				million gallons	tons	tons	
1918-19..	1,281,820	569,611	1,851,431	565.1	84,043	11,403	n.a.
1928-29..	1,689,887	626,180	2,316,067	791.2	122,750	13,159	n.a.
1938-39..	2,552,092	658,232	3,210,324	1,142.0	190,827	24,848	n.a.
1948-49..	2,278,043	855,223	3,133,266	1,153.2	157,064	42,343	135,137
1958-59..	2,333,147	1,032,243	3,365,390	1,330.9	187,393	41,567	213,555
Year—							
1957-58..	2,281,571	1,080,003	3,361,574	1,264.4	175,757	35,976	213,716
1958-59..	2,363,569	919,578	3,283,147	1,370.2	193,568	43,509	216,287
1959-60..		3,243,472		1,406.5	197,552	44,854	221,260
1960-61..		3,162,449		1,339.3	181,653	46,925	223,815
1961-62..		3,229,587		1,443.6	198,621	55,527	228,228

(a) "Number of units" indicates the number of cows that can be milked simultaneously—i.e. the cow capacity of installed milking machines.

(iii) *Size of Dairy Herds.* For information on the size of dairy herds see references to bulletins *Classification of Rural Holdings by Size and Type of Activity*, 1959-60, in § 1, para. 1, page 1083.

(iv) *Production of Milk.* (a) *Production per Cow.* The quantity of milk produced by a dairy cow can be as high as 1,000 gallons a year, and varies greatly with breed, locality and season. For all dairy cows and for all seasons for the whole of Australia prior to 1916, production averaged considerably less than 300 gallons per annum. Largely owing to an improvement in the quality of the cattle, and the increased application of scientific methods, the 300-gallon average was exceeded in each year since 1924. In six of the last eight years, an average of more than 400 gallons per cow has been obtained. In 1961-62, the average yield was 452 gallons. The annual average yields per cow shown in the following table are obtained by dividing the total production of whole milk for the year ended June by the mean of the number of dairy cows (in milk and dry) at 31st March of that year and of the preceding year. They are, in effect, based on the approximate number of dairy cows which were in milk during any part of the year. The average shown is, therefore, less than that for cows which were yielding during the greater part of the year, but it may be accepted as sufficiently reliable to show the general trend.

### AVERAGE MILK PRODUCTION PER DAIRY COW (Gallons)

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Average for three years ended—								
1938-39 .. ..	315	439	298	442	353	349	349	354
1948-49 .. ..	310	506	267	565	370	419	328	371
1958-59 .. ..	322	522	267	513	406	537	420	393
Year—								
1957-58 .. ..	302	505	233	488	398	529	383	371
1958-59 .. ..	352	523	302	509	395	524	453	412
1959-60 .. ..	382	544	301	518	452	554	447	431
1960-61 .. ..	355	548	263	574	468	505	447	418
1961-62 .. ..	387	571	306	614	462	562	471	452

(b) *Total Production of Whole Milk.* In the following table, particulars of the production of whole milk in the various States are shown for the years 1957-58 to 1961-62 compared with the averages for the three years ended 1938-39, 1948-49 and 1958-59. Victoria is the principal milk-producing State, and in 1961-62 the output from that State, 630.9 million gallons, represented 44 per cent. of total production. Output from New South Wales in 1961-62 was 344.7 million gallons (24 per cent. of the total) and that of Queensland 239.8 million gallons (17 per cent.). Production in the remaining States accounted for 15 per cent. of the total Australian output.

**TOTAL PRODUCTION OF WHOLE MILK**  
(<sup>'000</sup> Gallons)

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Average for three years ended—								
1938-39 .. ..	319,003	403,152	275,898	68,429	42,358	32,803	363	1,142,006
1948-49 .. ..	280,460	445,517	252,469	92,587	49,004	32,638	573	1,153,248
1958-59 .. ..	307,514	578,529	240,446	84,185	54,218	65,032	929	1,330,853
Year—								
1957-58 .. ..	288,565	565,439	210,827	80,606	53,480	64,655	849	1,264,421
1958-59 .. ..	327,679	582,948	258,174	82,071	52,167	66,178	980	1,370,197
1959-60 .. ..	348,389	598,323	252,562	78,483	57,549	70,226	969	1,406,501
1960-61 .. ..	319,410	596,706	212,749	87,030	58,544	63,858	1,005	1,339,302
1961-62 .. ..	344,724	630,948	239,823	95,504	58,240	73,206	1,117	1,443,562

(v) *Utilization of Whole Milk.* The utilization of whole milk and the production of butter and cheese in 1961-62 is given in the table below.

**UTILIZATION OF WHOLE MILK, PRODUCTION OF BUTTER AND CHEESE,  
1961-62**

Particulars	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia
<b>MILK (<sup>'000</sup> GALLONS)</b>								
Used for—								
Butter .. ..	(a) 191,549	(b) 442,251	(c) 160,590	33,704	34,579	56,621	7	919,301
Cheese .. ..	12,629	52,279	20,674	32,314	3,029	1,415	..	122,340
Preserved milk products ..	16,276	47,309	9,994	..	755	3,694	..	78,028
Other purposes	124,270	89,109	48,565	29,486	19,877	11,476	1,110	323,893
<b>Total ..</b>	<b>344,724</b>	<b>630,948</b>	<b>239,823</b>	<b>95,504</b>	<b>58,240</b>	<b>73,206</b>	<b>1,117</b>	<b>1,443,562</b>
<b>BUTTER (TONS)</b>								
In factories ..	(d) 38,994	(e) 95,649	(e) 35,643	7,424	7,483	12,063	..	197,256
On dairy and other farms ..	460	479	165	104	38	118	1	1,365
<b>Total ..</b>	<b>39,454</b>	<b>96,128</b>	<b>35,808</b>	<b>7,528</b>	<b>7,521</b>	<b>12,181</b>	<b>1</b>	<b>198,621</b>
<b>CHEESE (TONS)</b>								
In factories ..	5,953	23,919	8,973	14,659	1,364	605	..	55,473
On dairy and other farms ..	..	24	..	..	4	26	..	54
<b>Total ..</b>	<b>5,953</b>	<b>23,943</b>	<b>8,973</b>	<b>14,659</b>	<b>1,368</b>	<b>631</b>	<b>..</b>	<b>55,527</b>

(a) Includes 9,341,000 gallons of milk, the produce of New South Wales, sent as cream to factories in Victoria and Queensland. (b) Includes 1,600,000 gallons of milk, the produce of Victoria, sent as cream to New South Wales. (c) Includes 508,000 gallons of milk, the produce of Queensland, sent as cream to New South Wales. (d) Includes butter made from cream, the produce of Victoria and Queensland. (e) Includes butter made from cream, the produce of New South Wales.

There has been a gradual decline over the years in the proportion of milk used for butter-making. In 1961-62, 64 per cent. of the total milk supply was used for butter, 9 per cent. for cheese, 5 per cent. for preserved milk products and 22 per cent. for other purposes.

Details of the production of whole milk for various purposes are shown in the following table for each of the years 1957-58 to 1961-62 compared with the averages for the three year periods ended 1938-39, 1948-49 and 1958-59.

### PRODUCTION AND UTILIZATION OF WHOLE MILK: AUSTRALIA

('000 Gallons)

Period	Total production	Quantity used for—			
		Butter (factory and farm)	Cheese (factory and farm)	Preserved milk products	Other purposes (a)
Average for three years ended—					
1938–39.. ..	1,142,006	891,742	54,934	33,226	162,104
1948–49.. ..	1,153,248	738,377	91,642	78,739	244,490
1958–59.. ..	1,330,853	865,347	90,561	79,687	295,258
Year—					
1957–58.. ..	1,264,421	811,583	78,550	79,864	294,424
1958–59.. ..	1,370,197	893,626	94,900	81,074	300,597
1959–60.. ..	1,406,501	912,271	100,856	82,636	310,738
1960–61.. ..	1,339,302	839,596	104,470	76,619	318,617
1961–62.. ..	1,443,562	919,301	122,340	78,028	323,893

(a) Principally fluid milk for domestic purposes.

(vi) *Production of Butter, Cheese and Preserved Milk Products.* (a) *General.* The establishment of large central butter factories, either on a co-operative or independent basis, has resulted in a considerable reduction in the cost of manufacture. The product is also of a more uniform quality, and whereas formerly the average quantity of milk used per pound of hand-made butter was about three gallons, factory butter requires only about two gallons. In addition, subsidy payments by the Commonwealth Government are made only on factory-produced butter. As a result, the production of farm-made butter has declined substantially, and in 1961-62 represented only about 0.7 per cent. of all butter made. A similar position exists in the cheese-making industry where a negligible amount is now made on farms.

In 1961-62, factories in Australia engaged in the processing of milk into butter or cheese or the various preserved milk products numbered 353 and were distributed among the States as follows:—New South Wales, 72; Victoria, 127; Queensland, 71; South Australia, 44; Western Australia, 18; and Tasmania, 21. More details regarding numbers of factories, output, etc., are given in Chapter VI. Manufacturing Industry (see p. 239).

(b) *Production of Butter.* Production in 1961-62 at 198,621 tons was 16,968 tons (9.3 per cent.) more than the amount produced in 1960-61, but 10,290 tons (4.9 per cent.) less than the record post-war production of 1955-56. The foregoing figures include butter produced on farms, which has shown a steady decline from about 4,000 tons in the early 1950's to 1,365 tons in 1961-62.

The following table shows production of butter in factories and on farms in each State for the years 1957-58 to 1961-62 compared with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

### BUTTER PRODUCTION IN FACTORIES AND ON FARMS (Tons)

Period	Factory production							Factory and farm production, Aust.(a)
	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.	
Average for three years ended—								
1938-39 .. ..	49,665	61,566	52,637	7,977	5,803	3,934	181,582	190,827
1948-49 .. ..	31,394	58,715	42,243	9,028	6,632	4,484	152,496	157,064
1958-59 .. ..	33,832	87,659	38,131	7,509	6,812	10,618	184,561	187,393
Year—								
1957-58 .. ..	29,939	86,236	32,281	7,032	6,807	10,623	172,918	175,757
1958-59 .. ..	37,733	88,143	41,022	7,054	6,166	10,805	190,923	193,568
1959-60 .. ..	41,373	89,388	38,932	6,194	7,376	11,744	195,007	197,552
1960-61 .. ..	33,996	89,356	31,081	6,858	7,661	10,256	179,208	181,653
1961-62 .. ..	38,994	95,649	35,643	7,424	7,483	12,063	197,256	198,621

(a) Includes small quantities produced in the A.C.T. There is no recorded production in the Northern Territory.

(c) *Production of Cheese.* In 1961-62, production reached a record figure of 55,527 tons which was 6,470 tons (13.2 per cent.) greater than the previous record of 49,057 tons in 1953-54 and 8,602 tons (18.3 per cent.) greater than production in 1960-61.

The following table shows production of cheese in factories and on farms in each State in the years 1957-58 to 1961-62 compared with the averages for the three years ended 1938-39, 1948-49 and 1958-59.

### CHEESE PRODUCTION IN FACTORIES AND ON FARMS (Tons)

Period	Factory production							Factory and farm production, Aust.(a)
	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.	
Average for three years ended—								
1938-39 .. ..	3,280	7,206	5,277	6,866	427	1,424	24,480	24,848
1948-49 .. ..	2,385	17,378	8,916	11,984	969	641	42,273	42,343
1958-59 .. ..	4,368	17,607	6,844	11,218	1,127	335	41,499	41,567
Year—								
1957-58 .. ..	4,042	14,840	5,175	10,495	1,017	326	35,895	35,976
1958-59 .. ..	5,044	17,441	8,220	11,200	1,181	345	43,431	43,509
1959-60 .. ..	4,348	19,217	8,492	10,930	1,443	328	44,758	44,854
1960-61 .. ..	5,296	19,978	7,222	12,609	1,351	348	46,804	46,925
1961-62 .. ..	5,953	23,919	8,973	14,659	1,364	605	55,473	55,527

(a) Northern Territory and Australian Capital Territory: nil.

(d) *Production of Preserved Milk Products.* The production in 1961-62 of all full-cream milk products and milk by-products, with the exception of condensed, concentrated and evaporated sweetened full-cream milk, increased in comparison with 1960-61. Between the same years the quantity of whole milk used in the manufacture of preserved milk products increased from 76.6 million gallons in 1960-61 to 78.0 million gallons in 1961-62.

Preserved milk products are manufactured mainly in Victoria, which produced 60.6 per cent. of the total (in terms of whole milk equivalent) in 1961-62. New South Wales accounted for 20.9 per cent. and the remaining States for 18.5 per cent.

The following table shows details of the output of preserved milk products during the years 1957-58 to 1961-62, compared with the averages for the three years ended 1938-39, 1948-49 and 1958-59.

### PRODUCTION OF PRESERVED MILK PRODUCTS: AUSTRALIA

Particulars	Average for three years ended—			1957-58	1958-59	1959-60	1960-61	1961-62
	1938-39	1948-49	1958-59					

### PRODUCTION (TONS)

Full cream milk products—								
Condensed, concentrated and evaporated full cream milk(a)—								
Sweetened(h) ..	18,702	28,452	{ 36,322	{ 37,358	{ 31,627	{ 33,867	{ 29,534	{ 28,358
Unsweetened ..			{ 29,137	{ 28,317	{ 30,872	{ 33,074	{ 32,067	{ 34,599
Powdered full cream milk ..	9,464	16,650	18,373	18,073	19,183	19,592	18,555	20,235
Infants' and invalids' foods(c) ..	1,131	10,182	13,846	13,977	13,993	15,985	16,257	17,023
Milk by-products—								
Condensed, concentrated and evaporated skim milk ..	(d)	(e)	5,649	7,274	4,943	4,689	4,651	5,359
Powdered skim milk ..	(e)	4,782	29,758	24,580	34,128	41,204	36,952	37,691
Powdered buttermilk, mixed skim and buttermilk and whey	(f) 701	3,078	5,748	5,668	6,024	7,215	7,828	8,446
Casein ..	(g)	(g)	9,907	10,663	11,328	10,433	11,761	14,072

### WHOLE MILK EQUIVALENT (h) ('000 GALLONS)

Preserved milk products ..	33,226	78,739	79,687	79,864	81,074	82,636	76,619	78,028
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(a) Includes mixtures of full cream and skim milk and mixtures of full cream, skim and buttermilk. (b) Includes coffee and milk. (c) Includes malted milk and milk sugar (lactose). (d) Not available separately—included in condensed, concentrated and evaporated full cream milk. (e) Not available separately—included in powdered full cream milk. (f) Excludes powdered whey. (g) Not available. (h) That is, the estimated quantity of whole milk used to produce preserved milk products. Quantities of milk used to produce two or more products (for example, initially as full cream milk and subsequently as skim milk) are counted once only.

(vii) *Wholesale Price of Butter and Cheese in Australia.* Details of prices operating in each of the States since 1st July, 1952, are shown in the following table. The prices presented are those determined by the Commonwealth Dairy Produce Equalization Committee for choicest grade bulk butter and cheese.

### WHOLESALE PRICES OF BUTTER AND CHEESE: AUSTRALIA

(s. d. per cwt.)

Date from which prices became effective	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania
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### BUTTER

1st July, 1952 ..	417 8	417 8	417 8	417 8	422 4	417 8
26th July, 1955 ..	452 8	452 8	451 6	450 4	452 8	452 8
1st July, 1956 ..	466 8	466 8	465 6	464 4	466 8	466 8
1st July, 1958 ..	485 4	485 4	484 2	484 2	485 4	485 4
1st July, 1960 ..	501 8	501 8	500 6	501 8	501 8	501 8

**WHOLESALE PRICES OF BUTTER AND CHEESE: AUSTRALIA—continued.**  
(s. d. per cwt.)

Date from which prices became effective	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania
<b>CHEESE</b>						
1st July, 1952 ..	256 8	256 8	256 8	256 8	256 8	256 8
26th July, 1955 ..	275 4	275 4	275 4	274 2	275 4	275 4
1st July, 1956 ..	282 4	282 4	282 4	281 2	282 4	282 4
1st July, 1958 ..	291 8	291 8	291 8	291 8	291 8	291 8
1st July, 1960 ..	296 4	296 4	296 4	296 4	296 4	296 4

(viii) *Local Consumption of Butter and Cheese.* Following the cessation of butter rationing after the 1939–45 War, consumption per head rose to 31.2 lb. in 1951–52. However, in later years it gradually declined, and in 1961–62 it reached its lowest level since the war. At 24.0 lb. per head in 1961–62 it was 4 per cent. below the level of 1960–61.

Consumption of cheese per head in 1961–62 was 6.5 lb.; the third highest figure recorded. The highest figure recorded was 6.8 lb. per head in 1957–58.

The following table shows details of the production and disposal of butter and cheese for each of the years 1957–58 to 1961–62 compared with the averages for the three years ended 1938–39, 1948–49 and 1958–59.

**PRODUCTION AND DISPOSAL OF BUTTER AND CHEESE: AUSTRALIA**

Period	Change in stocks (a)	Production	Exports (b)	Apparent consumption in Australia	
				Total	Per head per annum
BUTTER					
Average for three years ended—	'000 tons	'000 tons	'000 tons	'000 tons	lb.
1938–39.. ..	..	190.8	90.0	100.8	32.9
1948–49.. ..	–3.5	157.1	75.9	84.7	24.8
1958–59.. ..	–0.7	187.4	69.7	118.4	27.2
Year—					
1957–58.. ..	+2.8	175.8	52.2	120.8	27.8
1958–59.. ..	–0.4	193.6	78.9	115.1	25.9
1959–60.. ..	+0.2	197.6	78.7	118.7	26.2
1960–61.. ..	+2.0	181.7	63.4	116.3	25.1
1961–62.. ..	+4.7	198.6	80.1	113.8	24.0
CHEESE					
Average for three years ended—	'000 tons	'000 tons	'000 tons	'000 tons	lb.
1938–39.. ..	..	24.9	11.5	13.4	4.4
1948–49.. ..	–0.8	42.3	24.3	18.8	5.5
1958–59.. ..	+2.8	41.6	13.8	25.0	5.7
Year—					
1957–58.. ..	–2.8	36.0	9.3	29.5	6.8
1958–59.. ..	+6.1	43.5	14.4	23.0	5.2
1959–60.. ..	–2.4	44.9	18.5	28.8	6.4
1960–61.. ..	–1.0	46.9	18.1	29.8	6.4
1961–62.. ..	+2.4	55.5	22.4	30.7	6.5

(a) Includes allowance for movements in stocks other than those held in main cold stores.  
(b) Figures for butter include ghee expressed as butter as well as butter shipped as ships' stores. Figures for cheese include ships' stores.

(ix) *Average Returns from Butter and Cheese Sold.* The table below shows rates realized on local, interstate and overseas sales and the average equalization and subsidy rates in operation for the years ended June, 1958 to 1962.

**BUTTER AND CHEESE: RATES REALIZED ON SALES, AVERAGE EQUALIZATION RATES AND RATES OF COMMONWEALTH SUBSIDY UNDER DAIRY INDUSTRY ASSISTANCE ACTS**

(Source: Commonwealth Dairy Produce Equalization Committee Ltd.)

(s. d. per cwt.)

Year	Rates realized on sales			Average equalization rate	Rate of subsidy	Rate of overall return to manufacturers
	Local	Interstate	Overseas			

**BUTTER**

1957-58..	..	453 11.5	431 11.3	238 4.3	380 9.3	71 7.8	452 5.1
1958-59..	..	468 8.1	448 7.3	334 3.2	412 11.1	64 10.9	477 10.0
1959-60..	..	468 8.8	453 3.8	343 6.9	417 5.5	63 6.0	480 11.5
1960-61..	..	481 4.5	462 7.9	261 11.7	399 8.3	68 11.3	468 7.6
1961-62..	..	(a)	(a)	(a)	398 5.2	62 6.7	460 11.9

**CHEESE**

1957-58..	..	270 7.4	137 8.0	240 0.7	35 11.2	275 11.9
1958-59..	..	279 0.2	274 0.4	277 1.1	29 7.5	306 8.6
1959-60..	..	279 7.9	204 11.1	247 10.7	29 1.4	277 0.1
1960-61..	..	283 10.9	211 6.0	256 1.2	28 5.6	284 6.8
1961-62..	..	(a)	(a)	231 8.0	24 4.6	256 0.6

(a) Not yet available.

The distribution between factory and farm of the overall return to manufacturers for butter is shown in the following table.

**COMMERCIAL BUTTER: AVERAGE OVERALL RETURNS**  
(Pence per lb.)

Year	Average overall returns on commercial butter		
	Rate of overall return to manufacturer	Estimated manufacturing cost	Return to dairy farmer
1957-58 .. .. .	48.474	4.626	43.848
1958-59 .. .. .	51.196	4.826	46.370
1959-60 .. .. .	51.531	4.965	46.566
1960-61 .. .. .	50.210	5.339	44.871
1961-62 .. .. .	49.392	5.339	44.053



(x) *Oversea Trade in Dairy Products. (a) General.* The production of butter and cheese in Australia is considerably in excess of local requirements, and consequently a substantial surplus is available for export overseas. In normal circumstances, the extent of this surplus is chiefly dependent upon seasonal conditions.

Exports of butter in 1961-62 amounted to 78,005 tons, compared with 61,137 tons in 1960-61. Exports of cheese in these years were 22,378 tons and 18,037 tons respectively. As in previous years, the principal importing country for Australian butter and cheese was the United Kingdom. In 1961-62, 87 per cent. of butter and 78 per cent. of cheese exported was consigned to the United Kingdom.

Total quantities and values of exports of Australian origin of butter, cheese and preserved milk products are shown in the table at the foot of the page.

(b) *Butter and Cheese Exports graded according to Quality.* All butter and cheese exported comes under the provisions of the Exports (Dairy Produce) Regulations and is subject to the supervision, inspection and examination by officers appointed for that purpose. These commodities are graded according to quality which has been fixed by regulation as follows:—flavour and aroma, 50 points; texture, 30 points; and condition, 20 points. Butter and cheese graded at 93 to 100 points is of choicest quality; at 90 to 92 points, first quality; at 86 to 89 points, second quality; and at 80 to 85 points, pastry or cooking quality or, in the case of cheese, third quality.

In the following table, particulars are given of the relative proportions of butter and cheese graded for export according to quality. Further details, which include actual quantities by States, are to be found in *Primary Industries, Part I.—Rural Industries, 1960-61*, Bulletin No. 55.

**BULK BUTTER AND CHEESE GRADED FOR EXPORT: AUSTRALIA**  
(Per cent.)

Grade	Butter			Cheese		
	1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
Choicest .. .. .	62.9	66.0	65.4	9.9	11.8	8.4
First quality .. .. .	27.5	25.9	26.0	77.2	76.7	82.6
Second and third quality(a) ..	9.6	8.1	8.6	12.9	11.5	9.0
<b>Total .. .. .</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) Includes rejected.

(c) *Exports of Dairy Products.* Exports of butter, cheese and other milk products are shown in the following table.

**EXPORTS OF DAIRY PRODUCTS: AUSTRALIA**

Particulars	Quantity ('000 lb.)			Value (£A.'000 f.o.b.)		
	1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
Butter .. .. .	172,410	136,948	174,731	28,646	19,651	23,537
Cheese .. .. .	42,395	40,400	50,124	4,989	4,607	5,203
Milk—						
Condensed, preserved, etc.—						
Sweetened full cream .. ..	50,542	38,188	36,028	3,527	2,553	2,378
Unsweetened .. .. .	6,014	5,637	4,327	356	319	258
Dried or powdered—						
Full cream .. .. .	18,184	15,690	13,043	2,641	2,608	2,148
Skim .. .. .	56,893	33,734	35,311	2,445	1,363	1,263
Malted .. .. .	6,078	6,759	7,647	947	1,012	1,177
Infants' and invalids' foods—						
Essentially of milk .. .. .	7,080	8,545	6,980	1,026	1,297	1,082
Other .. .. .	8,821	8,147	9,573	1,632	1,539	1,774

3. **Pigs and Pig Products.**—(i) *Pig Numbers.* At 31st March, 1962, 1,652,323 pigs were recorded, representing a small increase on numbers a year earlier. The number of pigs in each State and Territory for each of the five years ended 1958 to 1962 compared with the averages for the three-year periods ended March, 1939, 1949 and 1959, are given in the following table.

NUMBER OF PIGS

Period	N.S.W.	Vic.	Q land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1938–39 ..	374,963	285,465	299,707	74,329	74,657	42,802	404	481	1,152,808
1948–49 ..	366,267	261,922	375,191	101,934	91,862	43,184	424	554	1,241,338
1958–59 ..	377,510	263,363	405,702	99,632	135,404	61,389	2,543	160	1,345,703
Year—									
1957–58 ..	397,011	278,628	422,713	108,343	150,783	62,595	3,071	167	1,423,311
1958–59 ..	348,730	253,125	399,875	98,374	115,446	69,215	3,802	175	1,288,742
1959–60 ..	398,959	284,505	429,034	108,696	130,933	67,118	4,400	151	1,423,796
1960–61 ..	455,345	318,523	448,279	143,645	175,675	70,882	2,845	109	1,615,303
1961–62 ..	471,579	325,120	432,609	170,133	174,182	75,754	2,762	184	1,652,323

A long-term comparison of pig numbers is given in the division Pastoral Production of this chapter. Maps showing the distribution of pigs in Australia at 31st March, 1955 and 1948, appear on page 912 of Official Year Book No. 43 and on page 908 of Official Year Book No. 39, respectively.

(ii) *Size of Pig Herds.* Details of the size of pig herds have been published in a series of bulletins entitled *Classification of Rural Holdings by Size and Type of Activity*, 1959–60.

(iii) *Pigs Slaughtered.* The number of pigs slaughtered during each of the years 1957–58 to 1961–62, compared with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59, is shown in the following table. A graph showing the number of pigs in Australia from 1870 onwards appears on page 1061.

PIGS SLAUGHTERED

('000)

Period	Slaughterings passed for human consumption							Total slaughtering (including boiled down)
	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust. (a)	
Average for three years ended—								
1938–39 ..	562	503	530	155	109	65	1,925	1,961
1948–49 ..	440	371	448	154	138	54	1,606	1,615
1958–59 ..	594	439	474	159	191	94	1,956	1,968
Year—								
1957–58 ..	638	473	462	175	219	91	2,066	2,077
1958–59 ..	604	462	521	179	197	107	2,077	2,087
1959–60 ..	584	458	530	171	168	115	2,033	2,043
1960–61 ..	655	513	554	183	194	111	2,219	2,229
1961–62 ..	755	587	597	232	264	120	2,564	2,573

(a) Includes Australian Capital Territory and Northern Territory.

(iv) *Production.* (a) *Pigmeat.* In the following table, details of the production of pigmeat in each State are shown for the years 1957–58 to 1961–62, together with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59.

## PRODUCTION OF PIGMEAT (CARCASS WEIGHT)

(Tons)

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1938-39 ..	25,558	24,569	23,522	7,538	4,322	2,893	5	43	(a)88,450
1948-49 ..	27,182	22,308	22,856	8,993	8,500	2,916	24	36	92,815
1958-59 ..	28,272	23,097	23,180	8,778	9,624	4,156	84	209	97,400
Year—									
1957-58 ..	28,683	24,343	23,131	9,516	11,405	4,216	82	239	101,615
1958-59 ..	27,253	23,770	26,210	9,451	9,991	4,911	113	187	101,886
1959-60 ..	26,252	23,383	27,106	9,161	9,029	5,352	103	208	100,594
1960-61 ..	29,048	25,550	27,289	9,574	10,550	5,057	150	240	107,458
1961-62 ..	32,677	27,406	29,802	11,558	13,180	5,428	86	326	120,463

(a) Excludes trimmings from baconer carcasses.

(b) *Bacon and Ham.* Production of bacon and ham amounted to 39,868 tons in 1961-62. This amount is 6 per cent. above the amount of 37,411 tons produced in 1960-61. The record output of 56,246 tons was attained in 1944-45.

Details of production are shown by States in the following table for each year 1957-58 to 1961-62, compared with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

## PRODUCTION OF BACON AND HAM (CURED CARCASS WEIGHT) (a)

(Tons)

Period	N.S.W.	Victoria	Q'land	S. Aust.	W. Aust.	Tas.	Australia
Average for three years ended—							
1938-39 ..	10,396	7,556	8,759	2,940	1,838	1,022	32,511
1948-49 ..	14,436	10,787	9,846	4,580	4,209	1,196	45,054
1958-59 ..	11,132	8,302	10,294	3,275	2,987	1,078	37,068
Year—							
1957-58 ..	11,468	8,335	9,682	3,340	2,952	1,056	36,833
1958-59 ..	11,606	8,852	11,299	3,069	2,955	1,126	38,907
1959-60 ..	11,012	8,634	9,948	3,115	3,061	1,144	36,914
1960-61 ..	11,328	9,211	9,442	3,141	3,169	1,120	37,411
1961-62 ..	11,145	9,102	12,221	2,757	3,512	1,131	39,868

(a) Pressed and canned bacon and ham have been converted to cured carcass weight for periods subsequent to 1948-49.

(v) *Consumption.*—(a) *Pork.* Apparent consumption of pork per head rose to 13.1 lb. in 1961-62, an increase of 15 per cent. on the previous year. The 1961-62 level was the highest since the war. In recent years, consumption of pork per head has not fallen below 10 lb.

In the following table, details of the production and disposal of pigmeat are shown for the years 1957-58 to 1961-62 compared with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

**PRODUCTION AND DISPOSAL OF PIGMEAT (CARCASS WEIGHT): AUSTRALIA**

Period	Change in stocks	Production	Exports	Curing and canning	Apparent consumption (as pork or smallgoods) in Australia	
					Total	Per head per annum
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	lb.
Average for three years ended—						
1938-39 .. ..	..	88.5	13.7	48.6	26.2	8.5
1948-49 .. ..	-1.2	92.8	6.3	63.4	24.3	7.1
1958-59 .. ..	..	97.4	0.8	53.0	43.6	10.1
Year—						
1957-58 .. ..	+0.8	101.6	1.0	52.8	47.0	10.8
1958-59 .. ..	-1.9	101.9	0.9	55.6	47.3	10.6
1959-60 .. ..	+0.8	100.6	0.4	52.6	46.8	10.3
1960-61 .. ..	+0.8	107.5	0.4	53.3	53.0	11.4
1961-62 .. ..	-0.7	120.5	0.9	58.3	62.0	13.1

(b) *Bacon and Ham.* Consumption of bacon and ham has been about 7 lb. per head in recent years. The 1961-62 consumption was 7.0 lb. per head.

Details of production and disposal of bacon and ham for the years 1957-58 to 1961-62, compared with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown in the following table.

**PRODUCTION AND DISPOSAL OF BACON AND HAM (CURED CARCASS WEIGHT) (a): AUSTRALIA**

Period	Change in stocks	Production	Exports	Canning	Apparent consumption in Australia	
					Total	Per head per annum
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	lb.
Average for three years ended—						
1938-39 .. ..	..	32.5	1.0	..	31.5	10.2
1948-49 .. ..	..	45.1	3.1	2.1	39.9	11.7
1958-59 .. ..	+0.1	37.1	0.5	6.0	30.5	7.1
Year—						
1957-58 .. ..	-0.3	36.8	0.5	6.1	30.5	7.0
1958-59 .. ..	+0.2	38.9	0.3	6.4	32.0	7.2
1959-60 .. ..	-0.8	36.9	0.3	5.3	32.1	7.1
1960-61 .. ..	+0.1	37.4	0.3	5.3	31.7	6.8
1961-62 .. ..	+0.1	39.9	0.1	6.8	32.9	7.0

(a) Pressed and canned bacon and ham have been converted to cured carcass weight.

(vi) *Exports of Pigs and Pig Products.* Total quantities and values of exports of Australian origin of pigs and pig products for the years 1959-60 to 1961-62 are given in the following table.

## EXPORTS OF PIGS AND PIG PRODUCTS: AUSTRALIA

Particulars	Unit of quantity	Quantity			Value (£A.'000 f.o.b.)		
		1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
Bacon and Ham (including canned) ..	'000 lb.	694	1,575	596	134	404	154
Lard ..	"	185	539	645	19	47	48
Frozen pork ..	"	790	985	2,092	150	187	306
Pigs, live ..	Number	591	125	139	20	6	5

## § 2. The Poultry Industry

1. **General.**—Originally the poultry industry was conducted in conjunction with other branches of rural activity, mainly dairying, but it is now a specialized and distinct industry. It is from this source that the bulk of the commercial production is obtained. Practically all farm households keep poultry for the purpose of supplying their own domestic requirements and some supplies from this source are also marketed. In addition, many private homes in both rural and suburban areas keep small numbers of fowls in back-yard runs to help satisfy domestic needs. Because of the incompleteness of data available on poultry throughout Australia, details of poultry numbers are not published.

2. **Marketing of Eggs.**—(i) *Markets.* Details of the annual contracts entered into between the United Kingdom and Australian Governments up to 1952-53 and of the results of trading under free market conditions in the four years following appear in previous issues of the Official Year Book.

Over the period 1951-52 to 1961-62, Australian exports of shell eggs to the United Kingdom fell by 82 per cent. and total exports of shell eggs fell by 64 per cent. The main outlets for Australian eggs in 1961-62, other than the United Kingdom, were the United States of America (449,000 dozen) and Saudi Arabia (335,000 dozen).

The United Kingdom remains virtually the only export market for egg pulp. Australian exports of pulp to this country were approximately 11,000 tons in 1960-61 and 12,200 tons in 1961-62.

(ii) *Egg Export Control Act 1947.* Details of this Act were given in previous issues of the Official Year Book (see No. 47, p. 997).

3. **Recorded Production of Eggs and Egg Products.**—(i) *Shell Eggs.* Available statistics of the production and disposal of eggs in Australia are restricted to those recorded by the Egg Marketing Board of New South Wales and the Australian Egg Board. Details of production as recorded by these authorities are shown in the following table.

SHELL EGGS: PRODUCTION(a) RECORDED BY EGG BOARDS  
(<sup>000</sup> Dozen)

State	1957-58	1958-59	1959-60	1960-61	1961-62
New South Wales ..	49,168	45,221	53,495	62,156	62,867
Victoria ..	25,956	23,447	26,521	28,215	29,939
Queensland ..	7,894	8,692	10,007	10,810	10,176
South Australia ..	11,219	9,692	10,041	10,491	11,387
Western Australia ..	8,602	7,577	7,476	7,333	7,558
Tasmania ..	(b)	(b)	(b)	(b)	(b)
<b>Total(c)</b> ..	<b>102,839</b>	<b>94,629</b>	<b>107,540</b>	<b>119,005</b>	<b>121,927</b>

(a) Receipts from consignors and sales by producer agents.  
Tasmania.

(b) Not available.

(c) Excludes

(ii) *Egg Pulp, etc. Production.* Particulars of the production of whole egg pulp as recorded by the Egg Marketing Board for the State of New South Wales and the Australian Egg Board for the other States are shown in the following table.

# LIQUID WHOLE EGG PULP: PRODUCTION RECORDED BY EGG BOARDS

('000 lb.)

State	1957-58	1958-59	1959-60	1960-61	1961-62
New South Wales .. ..	13,198	9,808	17,791	21,446	20,916
Victoria .. ..	6,591	3,473	6,460	7,948	12,000
Queensland .. ..	1,658	2,011	2,767	3,716	3,321
South Australia .. ..	4,461	2,495	3,210	3,394	3,374
Western Australia .. ..	2,855	1,600	1,122	916	620
Tasmania .. ..	(a)	(a)	(a)	(a)	(a)
Total(b) .. ..	28,763	19,387	31,350	37,420	40,231

(a) Not available.

(b) Excludes Tasmania.

In addition to liquid whole egg, production was also recorded of liquid egg whites and liquid egg yolks. Output in 1961-62 amounted to 2,416,000 lb. and 1,784,000 lb., respectively, compared with 3,888,000 lb. and 2,798,000 lb., respectively, in the previous year. These figures exclude small quantities produced in Tasmania for which details are not available.

4. *Consumption of Eggs and Egg Products.*—Because of the operations of producers in areas outside the control of the Egg Boards and the extent of "back-yard" poultry-keeping, for which no statistics are collected, figures relating to total egg production must be accepted with some reserve. The production shown in the following table, together with details of exports and consumption, is based upon the records of Egg Boards of production from areas under their control, plus estimates of production from uncontrolled areas and from "back-yard" poultry-keepers.

# ESTIMATED PRODUCTION AND DISPOSAL OF EGGS IN SHELL: AUSTRALIA

Period	Change in stocks	Estimated total production	Exports	For drying and pulping(a)	Apparent consumption in Australia	
					Total	Per head per annum
Average for three years ended—	Mill. doz.	Mill. doz.	Mill. doz.	Mill. doz.	Mill. doz.	Dozen
1938-39 .. ..	-0.1	152.7	13.0	5.5	134.3	19.5
1948-49 .. ..	+0.1	204.7	17.7	39.1	147.8	19.3
1958-59 .. ..	..	189.9	9.6	23.0	157.3	16.1
Year—						
1957-58 .. ..	-1.2	190.8	12.4	23.7	155.9	16.0
1958-59 .. ..	-0.3	181.1	5.7	16.5	159.2	16.0
1959-60 .. ..	+0.6	198.6	3.4	27.2	167.4	16.5
1960-61 .. ..	-0.3	212.1	6.2	36.9	169.3	16.3
1961-62 .. ..	-0.2	215.7	5.8	36.5	173.6	16.4

(a) Includes wastage.

Details of the consumption of shell eggs, liquid whole egg and total shell egg equivalent per head of population per annum are shown in the following table.

# SUPPLIES OF EGGS AND EGG PRODUCTS AVAILABLE FOR CONSUMPTION: AUSTRALIA

(Per head per annum)

Period	Shell eggs	Liquid whole egg and egg powder (a)	Total	
			Number	Weight(b)
	No.	No.	No.	lb.
Average for three years ended—				
1938-39 .. .. .	235	8	243	26.6
1948-49 .. .. .	232	23	255	27.9
1958-59 .. .. .	194	12	206	22.5
Year—				
1957-58 .. .. .	192	11	203	22.2
1958-59 .. .. .	192	12	204	22.3
1959-60 .. .. .	198	14	212	23.2
1960-61 .. .. .	195	15	210	(c) 26.3
1961-62 .. .. .	196	14	210	(c) 26.3

(a) In terms of the number of shell eggs. (b) The average weight of an egg in Australia has been taken as 1.75 oz. for the years prior to 1960-61. From 1960-61, the average weight has been taken as 2 oz.

(c) Not comparable with earlier years; see footnote (b).

5. Oversea Trade in Poultry Products.—Details of the exports of poultry products in each of the years 1959-60, 1960-61 and 1961-62 are shown below.

## EXPORTS OF POULTRY PRODUCTS: AUSTRALIA

Particulars	Unit of quantity	Quantity			Value (£A.'000 f.o.b.)		
		1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
Eggs in shell .. ..	'000 doz.	2,582	5,443	5,007	506	847	831
Eggs not in shell—							
In liquid form ..	'000 lb.	16,153	26,807	29,231	1,999	3,111	3,273
Dry .. .. .	"	6	8	190	6	5	87
Frozen poultry ..	"	252	423	427	61	93	93
Poultry, live(a) ..	Number	443,376	283,365	555,908	64	41	75

(a) Includes day-old chicks.

During 1961-62, about 474,000 lb. of canned chicken (valued at £46,000) were imported from the United States of America; during 1960-61, 2,016,000 lb. (valued at £227,000) were imported from the United States.

## § 3. The Bee-Farming Industry

1. Production of Honey and Bees-wax.—Although practised as a separate industry, bee-farming is also carried on in conjunction with other branches of farming. In recent years, there has been considerable growth in the number of itinerant apiarists operating on a large scale with mobile equipment. Some of these apiarists move as far afield as from Victoria to Queensland in an endeavour to provide a continuous supply of nectar from flora suitable for their bees. The returns of honey from productive hives during 1961-62 shows an average of 126 lb. per hive and the average quantity of wax was 1.7 lb. per productive hive.

The number of hives and the production of honey and bees-wax during the year 1961-62 are shown in the following table.

## BEEHIVES, HONEY AND BEES-WAX, 1961-62

State or Territory	Beehives			Honey produced		Bees-wax produced	
	Pro- ductive	Unpro- ductive	Total	Quantity	Gross value	Quantity	Gross value
	'000	'000	'000	'000 lb.	£'000	'000 lb.	£'000
New South Wales ..	137	57	194	15,326	658	208	49
Victoria ..	84	19	103	10,314	591	135	34
Queensland ..	21	15	36	1,281	54	22	4
South Australia ..	62	10	72	8,405	296	123	25
Western Australia ..	37	8	45	7,982	253	94	16
Tasmania ..	5	2	7	279	23	4	2
Aust. Cap. Territory..	1	(a)	1	64	2	1	(b)
<b>Australia ..</b>	<b>347</b>	<b>111</b>	<b>458</b>	<b>43,651</b>	<b>1,877</b>	<b>587</b>	<b>130</b>

(a) Less than 500.

(b) Less than £500.

The production of honey and bees-wax fluctuates considerably and is determined mainly by the flow of nectar from flora, particularly the eucalypts, which varies greatly from year to year.

The table below shows the production of honey and bees-wax for periods from 1938-39 to 1961-62.

## HONEY AND BEES-WAX PRODUCTION

('000 lb.)

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aus- tralia(a)
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## HONEY

Average for three years ended—							
1938-39 ..	3,005	3,107	700	2,874	1,299	200	11,188
1948-49 ..	14,934	8,232	2,185	8,292	2,831	206	36,887
1958-59 ..	12,853	7,239	2,071	5,924	6,548	398	35,077
Year—							
1957-58 ..	13,029	5,884	1,373	4,151	7,313	481	32,286
1958-59 ..	10,583	7,624	1,766	5,453	6,680	342	32,487
1959-60 ..	18,682	9,661	4,119	7,221	5,549	296	45,362
1960-61 ..	15,286	8,390	1,848	4,442	5,311	441	35,801
1961-62 ..	15,326	10,314	1,281	8,405	7,982	279	43,651

## BEES-WAX

Average for three years ended—							
1938-39 ..	49	39	11	38	23	2	162
1948-49 ..	174	86	36	110	34	3	443
1958-59 ..	163	81	31	94	81	5	455
Year—							
1957-58 ..	165	67	25	86	87	5	436
1958-59 ..	137	86	25	80	84	4	417
1959-60 ..	257	113	59	106	67	4	607
1960-61 ..	197	105	32	59	71	5	470
1961-62 ..	208	135	22	123	94	4	587

(a) Includes Australian Capital Territory and Northern Territory.



2. **Oversea Trade in Bee Products.**—The quantity of honey exported in 1961–62, 25.4 million lb., was 51 per cent. more than in 1960–61. The Federal Republic of Germany was the principal importer, taking 54 per cent. of total exports.

Annual exports of bees-wax have been about 200,000 lb. in recent years. There were no imports of bees-wax into Australia in 1961–62.

Total quantities and values of exports of honey and bees-wax for the years 1959–60 to 1961–62 are shown below.

#### EXPORTS OF HONEY AND BEES-WAX: AUSTRALIA

Particulars	Unit of quantity	Quantity			Value (£A.'000 f.o.b.)		
		1959–60	1960–61	1961–62	1959–60	1960–61	1961–62
Honey .. ..	'000 lb.	13,706	16,770	25,390	545	708	1,113
Bees-wax .. ..	lb.	208,508	195,707	211,420	48	42	43

#### § 4. Value of Dairy, Poultry and Bee Production and Indexes of Price and Quantum of Production

1. **Gross Value of Dairy, Poultry and Bee Production, 1957–58 to 1960–61.**—The following table shows the gross value of recorded dairy, poultry and bee production at the principal markets in Australia.

#### GROSS VALUE OF DAIRY, POULTRY AND BEE PRODUCTION: AUSTRALIA (£'000)

Particulars	1957–58	1958–59	1959–60	1960–61	1961–62
Whole milk used for—					
Butter(a) .. ..	61,252	66,328	72,615	64,601	67,912
Cheese(a) .. ..	7,399	10,120	10,124	10,658	11,341
Preserved milk products ..	9,540	9,230	10,340	9,376	9,641
Other purposes .. ..	58,179	59,887	61,768	64,098	65,973
Subsidy paid on whole milk for butter and cheese .. ..	13,500	13,500	13,500	13,500	13,500
<i>Total, Whole Milk (including Subsidy) .. ..</i>	<i>149,870</i>	<i>159,065</i>	<i>168,347</i>	<i>162,233</i>	<i>168,367</i>
Pigs slaughtered .. ..	25,032	25,553	30,121	30,659	26,953
Dairy cattle slaughtered .. ..	10,425	15,721	14,228	11,864	10,916
Eggs .. ..	42,320	40,397	45,249	50,716	44,995
Poultry .. ..	13,150	14,380	14,588	16,240	16,731
Honey .. ..	1,794	1,803	2,390	1,772	1,877
Bees-wax .. ..	115	105	155	111	130
<b>Grand Total .. ..</b>	<b>242,706</b>	<b>257,024</b>	<b>275,078</b>	<b>273,595</b>	<b>269,969</b>

(a) Excludes Commonwealth subsidy which is shown separately.

2. **Gross, Local and Net Values, 1961-62.**—The values of dairy, poultry and bee farming production on gross, local and net bases are shown in the following table. Further information on values, including definitions of the terms used, is given in Chapter XXIX. Miscellaneous.

**GROSS, LOCAL AND NET VALUE OF DAIRY, POULTRY AND BEE PRODUCTION, 1961-62**

(£'000)

State or Territory	Gross production valued at principal markets	Marketing costs	Gross production valued at farm	Value of materials used in process of production	Net value of production(a)
New South Wales .. ..	91,883	15,480	76,403	(b) 17,501	58,902
Victoria .. ..	96,181	5,329	90,852	32,629	58,223
Queensland .. ..	37,742	2,573	35,169	11,606	23,563
South Australia .. ..	18,789	918	17,871	6,711	11,160
Western Australia .. ..	13,200	961	12,239	7,017	5,222
Tasmania .. ..	11,645	625	11,020	3,666	7,354
Northern Territory .. ..	116	n.a.	116	n.a.	116
Australian Capital Territory ..	413	34	379	90	289
<b>Australia .. ..</b>	<b>269,969</b>	<b>25,920</b>	<b>244,049</b>	<b>79,220</b>	<b>164,829</b>

(a) No deduction has been made for depreciation and maintenance.  
made for costs of power, power kerosene, petrol and other oils.

(b) No allowance has been

3. **Net Value of Production, 1957-58 to 1961-62.**—In the following table, the net values of dairy, poultry and bee production (total and per head of population) are shown by State.

**NET VALUE OF DAIRY, POULTRY AND BEE PRODUCTION(a)**

Year	N.S.W. (b)	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Australia (c)
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NET VALUE (£'000)

1957-58 .. ..	55,511	60,463	19,150	9,572	4,203	(b) 7,342	156,516
1958-59 .. ..	65,077	57,362	26,113	11,351	3,549	7,108	170,909
1959-60 .. ..	69,285	62,533	29,579	10,912	4,565	7,492	184,677
1960-61 .. ..	63,933	68,277	22,443	9,986	5,075	7,214	177,252
1961-62 .. ..	58,902	58,223	23,563	11,160	5,222	7,354	164,829

NET VALUE PER HEAD OF POPULATION (£)

1957-58 .. ..	15.2	22.5	13.5	10.8	6.1	(b) 22.1	16.1
1958-59 .. ..	17.5	20.9	18.0	12.5	5.0	21.0	17.2
1959-60 .. ..	18.2	22.2	20.0	11.7	6.4	21.8	18.2
1960-61 .. ..	16.5	23.6	14.9	10.4	7.0	20.6	17.1
1961-62 .. ..	14.9	19.7	15.4	11.4	7.0	20.6	15.5

(a) No deduction has been made for depreciation and maintenance.  
made for costs of power, power kerosene, petrol and other oils.

(b) No deduction has been  
(c) Includes Northern Territory and Australian Capital Territory.

4. Indexes of Quantum and Price of Dairy, Poultry and Bee Production.—For details of the methods of calculating these indexes and of the weights used *see* Chapter XXIX. Miscellaneous.

# INDEXES OF QUANTUM<sup>(a)</sup> AND PRICE OF DAIRY, POULTRY AND BEE PRODUCTION: AUSTRALIA

(Base: Average 3 years ended June, 1939 = 100)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Quantum <sup>(a)</sup> of production—					
Milk .. .. .	111	120	123	116	125
Other products .. .. .	120	118	122	127	135
<i>Total, Dairy, Poultry and Bee</i>	<i>114</i>	<i>119</i>	<i>123</i>	<i>120</i>	<i>128</i>
Per head of population ..	80	82	83	79	83
Price—					
Milk .. .. .	375	372	383	384	373
Other products .. .. .	399	421	450	455	374
<i>Total, Dairy, Poultry and Bee..</i>	<i>382</i>	<i>386</i>	<i>402</i>	<i>404</i>	<i>374</i>

(a) Indexes of value at constant prices, i.e. quantities revalued at average unit values of base years (1936-37 to 1938-39).

## CHAPTER XXIII

### FORESTRY

NOTE.—For further details on subjects dealt with in this chapter see the annual bulletins *Primary Industries, Part II.—Non-Rural Industries and Value of Production*, and *Secondary Industries* (sawmills, etc., operations).

All values of Australian oversea trade shown throughout this chapter are expressed as £A. f.o.b., port of shipment. The export table on page 1119 relates to exports of Australian produce, but quantities and values quoted in the text sometimes include re-exports, the amounts involved, however, being generally small.

#### § 1. Source of Statistics

Statistics relating to forestry are, in general, provided by the various authorities concerned with forestry administration. In each State, suitable areas of Crown land have been reserved for forestry purposes, either as State forests or other reserves, and the administration of these is the responsibility of the respective State Government forestry authorities. In addition, in some States, areas of forests on Crown lands dedicated as national parks and the like are administered by government departments other than the forestry authorities. There are timber resources on private land in each State, but details concerning these areas and production therefrom are not complete for all States. Forestry activities in the Northern Territory and the Australian Capital Territory are administered by the Commonwealth Government.

Particulars of forested areas contained in this chapter have been collected by the Statisticians of the several States, mainly from information provided by the State forestry authorities. The Forestry and Timber Bureau of the Commonwealth has provided figures for the Northern Territory and the Australian Capital Territory and, in addition, has made available certain other data.

Statistics of timber and by-products have been compiled from the annual factory collections undertaken by the Statisticians in the several States. Figures of production of gums, resins and tanning barks have been provided by the State forestry authorities.

Data of imports and exports of forest products and timber and timber products have been compiled in the Commonwealth Bureau of Census and Statistics as part of the statistics of oversea trade.

The figures shown relate, in general, to years ended 30th June.

Forested areas shown in this chapter relate to areas administered by the State or Commonwealth authorities, or to those reserved by government legislation. They are not based on any inventory of forest resources using standard and uniform definitions throughout Australia. It should be stressed, therefore, that the figures are not comparable between States owing to the lack of uniformity in the definition of a forest.

## § 2. Forestry in Australia

1. **Objects of Forestry.**—The main object of forestry authorities is to manage the forests of the country in a manner that will provide the maximum benefits, both direct and indirect. Direct benefits include the provision of essential commercial commodities such as structural timber, pulpwood, plywood, veneers, firewood, bark products, tars, oils and resins. Indirect benefits include protection of soil and stock from wind and exposure, regulation of stream flow, provision of recreational facilities, and aesthetic effects. Forestry also aims at improving existing forests and woodlands by properly controlled exploitation, by protection from such destructive agencies as fire and insect attack, and by inducing regeneration where it is desirable. The provision of a partial tree cover on denuded lands where this cover is necessary for protective purposes, and a complete cover when the land is better under forest than under any other land use, are further aims of forestry.

2. **General Account of Forests and Timbers.**—(i) *General.* The area of land in Australia suitable for the production of commercial timber as a primary crop is very small in comparison with the size of the continent. Only 6 per cent. of the total land area supports tree growth as the dominant vegetation. This area includes large tracts of mallee and other land carrying timber either too low in quality or too inaccessible to be exploited economically. Hardwoods cover 97 per cent. of the total forested area, and approximately 94 per cent. of the hardwood area is occupied by eucalypts.

(ii) *Eucalypts.* The genus *Eucalyptus* is remarkable in that it includes over 600 species ranging in size from the mighty forest giants, mountain ash (*E. regnans*) of Victoria and karri (*E. diversicolor*) of Western Australia, down to the small mallee species which inhabit vast areas of the inland. The habitats range from the dry inland areas to the high mountain areas in the Australian Alps, from areas with the annual rainfall as low as 10 inches to those where it is 250 inches. Of the 600 species, only about 100 are used for sawmilling, and not more than 40 of these are exploited extensively.

The better class of eucalypt forest is concentrated mainly in the higher rainfall areas such as the east coast, the highlands of southern New South Wales, Victoria and Tasmania and the south-western corner of Western Australia. The more important species include blackbutt (*E. pilularis*), tallowwood (*E. microcorys*), flooded gum (*E. grandis*) and red mahogany (*E. resinifera*) of New South Wales and Queensland, alpine ash (*E. delegatensis*) of New South Wales, Victoria and Tasmania, mountain ash (*E. regnans*), messmate (*E. obliqua*) and blue gum (*E. bicostata*) of Victoria and Tasmania, and karri (*E. diversicolor*) of Western Australia. For height and grandeur, mountain ash and karri are unequalled among the hardwoods of the world, and are excelled only by a few North American softwood species.

In the coastal regions with lower rainfall, the eucalypt forests contain many durable species such as the ironbarks, grey gums and bloodwoods of the east coast and jarrah (*E. marginata*) and tuart (*E. gomphocephala*) of Western Australia. The spotted gum (*E. maculata*) occurring in New South Wales and Queensland is another example.

Along most of the inland streams and adjacent flood-plains, there are riverain forests consisting mainly of river red gum (*E. camaldulensis*), a very durable hardwood which has supplied large quantities of sawn timber, railway sleepers and fence posts.

Eucalypts also occur in open forest and savannah woodland formations in areas receiving a reliable annual rainfall of about 10 to 20 inches per annum, as on the goldfields of Western Australia where salmon gum (*E. sa'monophloia*), brown mallet (*E. astringens*) and wandoo (*E. wandoo*) occur. These forests are of considerable value for firewood, as mining timbers and for fencing. Minor forest products such as sandalwood, tan bark, essential oils, etc., also come from isolated areas in this type of country, and in the more arid areas.

The table below shows the quantities of timber sawn from the main types of eucalypts in 1960–61.

## SAWN TIMBER PRODUCED FROM EUCALYPTS(a), AUSTRALIA, 1960-61

(Source: Forestry and Timber Bureau)

('000 super. ft.)

Species							Sawn timber
Messmate ( <i>E. obliqua</i> )	..	..	..	..	..	..	230,071
Blackbutt ( <i>E. pilularis</i> )	..	..	..	..	..	..	220,239
Alpine ash ( <i>E. delegatensis</i> )	..	..	..	..	..	..	152,029
Jarrah ( <i>E. marginata</i> )	..	..	..	..	..	..	148,014
Karri ( <i>E. diversicolor</i> )	..	..	..	..	..	..	39,302
Red gum ( <i>E. camaldulensis</i> )	..	..	..	..	..	..	38,995
Mountain ash ( <i>E. regnans</i> )	..	..	..	..	..	..	37,601
Other eucalypts(b)	..	..	..	..	..	..	201,753
<b>Total, Eucalypts</b>	..	..	..	..	..	..	<b>1,068,004</b>

(a) Includes the volume of sawn sleepers and the sawn equivalent of ply and veneer. (b) Separate figures are not available for the production of other species, but the probable order of importance of the next three eucalypt species is: spotted gum (*E. maculata*), tallowwood (*E. microcorys*) and silvertop ash (*F. sieberiana*).

(iii) *Other Hardwoods*. Hardwood genera other than *Eucalyptus* cover a comparatively small portion of the forested land in Australia (some 6 per cent.), but these areas provide a great variety of timbers suitable for a multitude of uses. There are two basic types of forest containing supplies of hardwoods other than eucalypts, namely, the tropical and subtropical rainforests of coastal New South Wales and Queensland, and the temperate rainforests of southern Victoria and Tasmania, both of which yield species known collectively as rainforest or brushwood species. The total volume of brushwood species produced in 1960-61 was 69,764,000 super. feet, i.e. less than seven per cent. of the total hardwood cut in Australia.

The tropical and subtropical rainforest along the eastern coast of Australia contains a large number of different species. Tropical rainforest occurs in northern Queensland in the vicinity of Cairns and on the Atherton Tableland, providing such well-known cabinet woods as Queensland maple (*Flindersia brayleyana*), Queensland walnut (*Endiandra palmerstonii*) and the silky oaks. The subtropical rainforest found in southern Queensland and northern New South Wales yields the tulip oaks, crab apple (*Shizomeria ovata*) and white beech (*Gmelina leichhardtii*). Coachwood (*Ceratopetalum apetalum*) and sassafras (*Doryphora sassafras*) occur in regions to the south near Dorrigo and have yielded valuable timber produce for many years.

Turpentine (*Syncarpia glomulifera*), an excellent harbour pile timber resistant to marine borer attack, and brush box (*Tristania conferta*), a superior structural decking timber, are found in association with some eucalypts in the wetter rainfall areas on the north coast of New South Wales and in southern Queensland.

Temperate rainforest which is to be seen in southern parts of Victoria and western Tasmania consists mainly of myrtle beech (*Nothofagus cunninghamii*), but produces also southern sassafras (*Atherosperma moschata*) and blackwood (*Acacia melanoxylon*).

(iv) *Softwoods*. The most important species of softwood is a conifer, the cypress pine (*Callitris hugelii*). Although this species is widely distributed throughout Australia, the main cypress pine forests of commercial value occur in New South Wales and southern Queensland west of the Great Dividing Range, covering about 2.5 per cent. of the total forest area of Australia. The trees are comparatively small, but the timber has particular value owing to its durability and resistance to termites. It is suitable for use as scantlings, flooring, linings, weatherboards, poles and posts. As much of the area originally covered by cypress pine has been cleared for wheat farming and grazing, the production from the remaining State forests is now strictly regulated to ensure a continuous supply. The volume of cypress pine cut in 1960-61 was approximately 72.0 million super. feet, but in 1961-62 this cut dropped to approximately 66.5 million super. feet.

Previously the most important softwood resources of Australia were the forests of hoop pine (*Araucaria cunninghamii*) in southern Queensland and New South Wales. The greater part of the original hoop pine forests has been exploited, but considerable areas have been replanted with this species in Queensland and, to a lesser extent, in New South Wales. Hoop pine also occurs in subtropical rainforest, in association with tulip oaks, crab apple, white beech, coachwood and sassafras.

Other native softwoods which have played a useful but minor part in the Australian timber industry include bunya and kauri pines (*Araucaria bidwillii* and *Agathis palmerstonii*) of Queensland, and celery top, Huon and King William pines (*Phyllocladus asplenifolius*, *Dacrydium franklinii* and *Athrotaxis selaginoides*) of Tasmania. Kauri pine is found in the tropical rainforest of northern Queensland in association with non-eucalypt hardwoods, while bunya pine occurs in the subtropical rainforests. In the temperate rainforests of Tasmania, celery top, Huon and King William pines are found in association with myrtle beech, southern sassafras and blackwood. Supplies of Huon and King William pines are now almost exhausted.

3. **Forested Areas.**—(i) *Extent of Forests.* Information on Australian forest resources is imperfect. It is not possible to give a reliable estimate of the forest area needed to meet future demands because of the unknown variables involved, in particular, the yield capacity per acre, future consumption of different classes of timber, and the future population.

According to estimates made for the Eighth British Commonwealth Forestry Conference held in Kenya in 1962, the total area of forest in Australia is 512.2 million acres, or about 27 per cent. of the total land area of the continent. However, about four-fifths of this area carries only sparse stunted tree growth. Only 19.2 million acres of the total forested area consists of residual prime native forest. It has not been possible to show the distribution of the forested areas by States, but other particulars are set out in the table below.

### CLASSIFICATION OF FOREST AREA(a): AUSTRALIA

(Source: Forestry and Timber Bureau)

('000 acres)

Type of forest	Area
<b>LANDS</b>	
Accessible forests—	
Productive forests in use—	
Coniferous (softwood) .. .. .	492
Non-coniferous (broadleaved) .. .. .	24,352
Mixed woods .. .. .	5,636
Open areas .. .. .	245
Total, Productive Forests in Use .. .. .	30,725
Productive forests not in use .. .. .	(b) 31,961
Unproductive accessible forests .. .. .	(c) 257,687
Total, Accessible Forests .. .. .	(d) 320,373
Inaccessible forests .. .. .	191,795
Total, Forested Area .. .. .	512,168

NOTE.—For footnotes, see next page.

## CLASSIFICATION OF FOREST AREA(a): AUSTRALIA—continued

(Source: Forestry and Timber Bureau)

('000 acres)

Type of forest							Area
OWNERSHIP OF ACCESSIBLE FORESTS							
Publicly-owned forests—							
State forests	..	..	..	..	..	..	23,534
Other forests	..	..	..	..	..	..	150,329
<i>Total, Publicly-owned Forests</i>							<i>173,863</i>
Privately-owned forests	..	..	..	..	..	..	145,537
Ownership not yet determined	..	..	..	..	..	..	973
<b>Total, Accessible Forests</b>							<b>320,373</b>

(a) Based on the 1960 classification of forests. (b) Includes approximately 25 million acres capable of producing fuelwood only. (c) This area carries only sparse, stunted trees. (d) Includes approximately 256 million acres of land carrying only stunted trees.

(ii) *Forest Reservations.* According to statements furnished by State and Commonwealth authorities, reservations of forest areas in Australia as at 30th June, 1962, totalled 39.0 million acres, of which 23.5 million acres were dedicated State forests and 15.5 million acres were timber and other reserves. The distribution of those areas is shown by States in the following table.

## AREA OF FOREST RESERVATIONS, 30TH JUNE, 1962

('000 acres)

State or Territory			State forests	Timber reserves (Forest Acts)	Other reserves (a)	Total
New South Wales	..	..	6,664	1,402	(b) 1,535	9,601
Victoria	..	..	4,868	(c) 861	(b) 368	6,097
Queensland	..	..	5,170	3,033	928	9,131
South Australia	..	..	277	1	760	1,038
Western Australia	..	..	4,348	(d) 2,561	321	7,230
Tasmania	..	..	(e) 2,154	137	(f) 1,207	3,498
Northern Territory	..	..	..	9	(g) 2,272	2,281
Australian Capital Territory	..	..	..	..	(h) 131	131
<b>Australia</b>	<b>..</b>	<b>..</b>	<b>23,481</b>	<b>8,004</b>	<b>7,522</b>	<b>39,007</b>

(a) Includes national parks and scenic reserves. (b) Reserved under Lands Acts. (c) Includes 151,000 acres reserved under Lands Acts. (d) Includes 775,000 acres reserved under Lands Acts. (e) Includes 465,000 acres of State forests under pulpwood concessions and 266,000 acres under exclusive and general forestry permits. (f) Includes 612,000 acres of Crown land under pulpwood concessions and 360,000 acres of Crown land under exclusive forestry permits. (g) Comprises a fauna and flora reserve on Coburg Peninsula (352,000 acres), land covered by pastoral leases (820,000 acres) and land within Welfare Reserves (1,100,000 acres). (h) Forest land not specifically reserved.



A considerable proportion of the permanently reserved areas is in inaccessible mountainous country, and many of the forests contain a mixture of species, only some of which are at present of commercial value. Much of the area consists of inferior forest, and a large proportion of the whole has been seriously degraded by recurrent fires. Moreover, the indigenous forest does not contain adequate supplies of softwood, and Australia's requirements have had to be met largely by imports.

(iii) *Plantations.* As a result of the planned policy of the forest services and of several private commercial organizations, the area of softwood plantations, mainly of exotic species, is steadily increasing. It was natural that this aspect of forestry should receive earliest attention in South Australia, as this is the State most poorly endowed with natural forest. South Australia now has a larger area of planted softwoods than any other State in Australia, and for some years has been exploiting considerable quantities of timber from these plantations. The total production is now over 200 million super. feet per annum and is expected to be increased substantially during the next decade. Production is also increasing in the other States, and the thinnings from their plantations are already supplying a significant volume of timber.

New areas are usually planted during the winter. Data are now compiled as at 30th September each year, so that, in the main, 1962 plantings are included in the figures of softwood plantations shown in the following table.

#### SOFTWOOD PLANTATIONS, 30TH SEPTEMBER, 1962

(Source: Forestry and Timber Bureau)

(Acres)

State or Territory	Government			Private (mainly <i>P. radiata</i> )	Total
	<i>Pinus radiata</i>	Other species	Total		
New South Wales .. ..	73,556	19,399	92,955	(a) 20,000	112,956
Victoria .. ..	(b) 43,922	11,097	(b) 55,019	67,600	122,619
Queensland .. ..	2,120	96,917	99,037	6,720	105,757
South Australia(c) .. ..	107,329	9,311	116,640	37,444	154,084
Western Australia .. ..	12,957	24,425	37,382	1,361	38,743
Tasmania .. ..	16,669	419	17,088	6,408	23,496
Northern Territory .. ..	..	135	135	15	150
Australian Capital Territory ..	23,358	2,238	25,596	100	25,696
<b>Australia .. ..</b>	<b>279,911</b>	<b>163,941</b>	<b>443,852</b>	<b>139,648</b>	<b>583,500</b>

(a) Estimated. (b) Includes approximately 4,000 acres of plantations owned by State instrumentalities other than the Forests Commission. (c) Excludes plantings during 1962.

A special article prepared by the Forestry and Timber Bureau giving a detailed account of the history and development of softwood plantations and of the characteristics of individual species, is included in Official Year Book No. 44, page 975.

Hardwood plantations (mainly *Eucalyptus spp.*) comprise a much smaller area, and the total acreage at 30th June, 1962, was 32,000 acres, about two-thirds of which was mallet. Plantations of this species have been established in Western Australia for tan bark production.

4. *Forest Administration and Research.*—(i) *Forestry Activities of the Commonwealth Government.* (a) *General.* Although control of forests is a function of the State Governments, the Commonwealth Government has entered the research field with the aim of

assisting both public and private enterprise. The two main research authorities administered by the Commonwealth Government are the Commonwealth Forestry and Timber Bureau and the Division of Forest Products of the Commonwealth Scientific and Industrial Research Organization. A brief account of the activities of these two organizations is given below.

(b) *Commonwealth Forestry and Timber Bureau.* The activities of the Forestry and Timber Bureau include forestry education and research, the study of timber supply and the management of certain forests.

The Australian Forestry School, located in Canberra, trains professional foresters. Training at the school covers the third and fourth years of a four-year degree course in forestry. The first two years of the course are spent in a study of prescribed science subjects at one of the Australian universities. The third and fourth years are spent at the Forestry School studying specialized forestry subjects. Students who complete the course satisfactorily graduate in Forestry at their home university and are awarded the Commonwealth Diploma in Forestry. The Commonwealth Diploma in Forestry or the Diploma in Forest Technology may also be awarded to suitable graduates from Australia or overseas who complete a course at the Australian Forestry School.

In 1961, the Commonwealth Government decided to expand forestry research in Australia and combined the research activities of the existing Divisions of Silvicultural Research and Forest Management Research to form the Forest Research Institute. The research work carried out by the existing sections of the Forest Research Institute covers a wide range of studies, including the following:—factors affecting tree growth, tree breeding, introduction of exotic species, forest nutrition, forest botany, forest entomology and pathology, fire protection, watershed management, forest mensuration, forest management and management economics, and aerial inventory. At the present time, there are forest experimental stations at Mt. Burr in South Australia, at Dover in Tasmania and at Dwellingup in Western Australia, which are run on a co-operative basis with the forest services of those States. The station at Traralgon, Victoria, is operated in conjunction with a private forestry company, and the Darwin station works on behalf of the Northern Territory Administration. The Hobart Airport station is a joint venture by the Forestry and Timber Bureau and the Commonwealth Scientific and Industrial Research Organization acting on behalf of the National Sirex Fund. A new station is under construction at Mt. Gambier in South Australia.

Advice is currently made available to government departments and private enterprise on timber supply matters. Research is undertaken on logging methods and machines and on matters associated with the marketing of timber products.

A Division of the Bureau manages the forests of the Australian Capital Territory, while the Darwin research station advises on the management of the forests of the Northern Territory. In addition, advice is made available to the Administrations of the Australian External Territories on the management of the forests in those Territories.

(c) *Commonwealth Scientific and Industrial Research Organization, Division of Forest Products.* Fundamental investigations connected with the properties and uses of timber and forest products generally are carried out by the Division of Forest Products of the Commonwealth Scientific and Industrial Research Organization. These investigations cover a very wide field, e.g. structure and chemistry of wood, tans, etc.; properties and uses of wood; methods of production of sawn timber, pulp, paper, etc.

(ii) *Forestry Activities of the States.* The powers and functions of State forest authorities are laid down under forest Acts and Regulations. In each State, there is a department or commission to control and manage State forests, etc. Its functions include the introduction of proper measures for the control and management of forest land; the protection of forest land; the conversion, marketing and economic utilization of forest products; the securing of an adequate and permanent reservation of State forests; the establishment and maintenance of coniferous forests to remedy the existing deficiency of softwoods in Australia. All State forest services are actively engaged on research programmes involving problems of a more practical nature as opposed to the fundamental research being carried out by the federal authorities. The Forest Commission of Victoria maintains a Forestry School at Creswick, where recruits are trained for employment in the Commission or in other avenues of forestry. Annual reports are issued by each State forest authority.

In addition to developing permanent forest reserves in each State, foresters are surveying all timber lands with a view to obtaining dedications of new State forests to add to the permanent forest estate or to release areas unsuitable for forestry for other uses. State forest authorities also usually control all timber on unoccupied Crown lands as well as over 10 million acres of timber reserves, national parks, etc.

The universities in all States provide facilities for forestry graduates attending the universities or, in some cases, for forestry graduates working within, or outside, the States to proceed to advanced degrees. The University of Melbourne has established a School of Forestry to assist both undergraduate and post-graduate students.

(iii) *Private Forestry.* A number of private forestry companies are now operating in Australia. They are concerned mainly with the supply of raw materials to specific wood processors (often parent companies). The majority have professional foresters on their staff, several being engaged on research.

An estimate of the area of softwood plantations established by private companies and individuals is included in the table on pages 1108-9.

**5. Fire Protection.**—Fire control measures in Australia are the responsibility of the individual State governments, and the provision of adequate fire protection is one of the main problems facing forest authorities. Of some 52 million acres of forest land requiring protection, the forest services maintain a high degree of protection over a relatively accessible area of about 20 million acres; about 19 million acres, being more difficult of access, are not so highly protected; about 13 million acres are, at present, not protected.

The responsibility for the protection of private property outside urban areas rests with volunteer bush fire brigade organizations which are co-ordinated in each State by a committee or board carrying out functions of an advisory or educational nature and fostering the growth and organization of the bush fire brigade movement. Throughout the main agricultural and forest areas of Australia, there are over 5,000 registered volunteer bush fire brigades with a membership approaching 250,000. Although forest and rural fire organizations are entirely separate entities, a high degree of co-operation and liaison is maintained.

In addition to the forest service and rural organizations, various private and semi-governmental bodies in each State maintain fire protection organizations, which are generally concerned with the protection of private forestry operations and hydro-electric and water catchment areas.

Over the five-year period 1958 to 1962, the annual cost of protecting from fire the 39 million acres of forest land for which State forest services provide protection is estimated at £2,100,000 or about 1s. 1d. an acre. The cost of rural fire control as a whole cannot be estimated with any degree of accuracy, because by far the greatest contribution comes from the personal efforts of volunteer brigade members.

The Australian fire season is very variable, with an average of one particularly bad fire season every seven years or so. Such years as 1926, 1939, 1944, 1952 and 1957 account for a large proportion of the average annual burn. Over 80 per cent. of the area burnt carries little commercial timber, being mainly firewood and protection forest. The number of fires and the forest area burnt during the last five years is shown in the following table.

#### NUMBER OF FIRES AND FOREST AREAS BURNT: AUSTRALIA

(Source: Forestry and Timber Bureau)

Year				Number of fires	Forest areas burnt	Burnt areas as a proportion of total forest areas
				No.	'000 acres	Per cent.
1957-58	..	..	..	2,908	2,078	5.11
1958-59	..	..	..	1,175	456	1.10
1959-60	..	..	..	1,504	1,314	2.48
1960-61	..	..	..	2,667	1,294	2.47
1961-62	..	..	..	1,761	297	0.57

Intensive research work is being undertaken on fire problems, and several governmental groups are working on such projects as the study of fire behaviour and associated fuel and meteorological conditions, the use of chemical aids in fire suppression, the development of protective clothing and devices to aid fire-fighters, and the development of more efficient fire-fighting equipment.

Since fire prevention is one of the most important aspects of the problem, intensive campaigns are being conducted to reduce the incidence of man-caused fires. A study of fire causes in recent years reveals that human agencies account for approximately 90 per cent. of all fires, and of this figure at least 80 per cent. were preventable. It is estimated that "burning-off" (much of which is started illegally) accounts for 30 per cent. of all fires. Lightning accounts for a little over 10 per cent. of all fires in Australia, although the incidence of fires caused by lightning is much higher in certain areas, especially the Southern Highlands region in New South Wales and Victoria. Although lightning is a relatively small numerical cause of fire, the percentage area burnt from this cause is estimated at about 20 per cent. This high percentage is due to the multiple fire outbreaks causing fire fighting difficulties and to the inaccessibility of the areas in which such fires generally occur.

### § 3. Employment in Forestry

1. **Persons Engaged in Forestry Activities.**—In the following table, which shows particulars collected in the Population Censuses of Australia of 30th June, 1947, 1954 and 1961, the numbers of persons whose industry was stated to be "forestry (excluding sawmilling)" are shown, together with the numbers engaged in all primary industries and the total work force.

#### PERSONS ENGAGED IN FORESTRY: AUSTRALIA

Particulars	Census, 30th June—		
	1947	1954	1961
Persons engaged in—			
Forestry (excluding sawmilling) .. .. .	24,793	15,468	13,725
All primary industries .. .. .	563,607	560,100	472,670
Total work force .. .. .	3,196,431	3,702,022	4,225,098
Persons employed in forestry (excluding sawmilling) as a proportion of—			
All primary industries .. .. . %	4.4	2.8	2.9
Total work force .. .. . %	0.8	0.4	0.3

2. **Employment by Forestry Departments.**—In the table below, details are shown of the number of persons employed by State forestry departments, and by the Forestry and Timber Bureau in the Australian Capital Territory and the Northern Territory, at 30th June, 1962.

#### PERSONS EMPLOYED BY FORESTRY DEPARTMENTS, 30th JUNE, 1962

Occupational group	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Professional staff	229	207	91	75	61	32	5	9	709
Non-professional field staff ..	220	222	97	8	148	87	11	1	794
Clerical staff ..	300	255	187	101	51	85	3	8	990
Extraction of timber ..	1,266	104	123	38	28	..	(a) 14	..	6,475
Milling of timber		19	..	739	15	..	..	..	
Labour (forest workers, etc.)	839		2,015	264	554	298	(b) 111	48	8,968
Total ..	2,015	1,646	2,513	1,225	857	502	144	66	

(a) Includes 13 full-blood aboriginals.

(b) Includes 97 full-blood aboriginals.

3. **Employment in Milling Operations.**—Details of the average number of persons employed, including working proprietors, in sawmills during the year 1961–62 are shown in the next table. Further details regarding the operations of sawmills in 1960–61 are shown in Chapter VI. Manufacturing Industry.

#### NUMBER OF SAWMILLS AND NUMBER OF PERSONS EMPLOYED, 1961–62

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas. (a)	Aust.(b)
Number of sawmills .. .. .	866	463	556	82	217	329	2,513
Average number of persons employed during year—							
Males .. .. .	8,162	6,045	5,341	2,115	3,653	2,604	27,920
Females .. .. .	409	241	285	189	58	80	1,262
Total .. .. .	8,571	6,286	5,626	2,304	3,711	2,684	29,182

(a) Includes plywood mills.

(b) Excludes Northern Territory and Australian Capital Territory.

### § 4. Forest Production

1. **Forest Products.**—The table below shows details of production of forest products in each State and Territory in 1961–62.

#### FOREST PRODUCTION, 1961–62

Product	Unit	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Logs for sawing, peeling, slicing or pulping—										
Forest hardwoods .. .. .	'000 cub. ft.	48,076	60,789	21,123	574	50,094	42,572 (a)	7	154 <sup>b</sup>	223,389
Brushwoods and scrubwoods	"	3,812	..	8,076	..	..	.. (a)	2	..	(b)11,890
Softwoods—										
Indigenous forest "pines"										
Cypress .. .. .	"	7,268	205	4,691	114	..	.. (a)	73	..	(b)12,351
Other .. .. .	"	346	..	2,928	3	..	399	..	..	(b)3,676
Plantation grown "pines"	"	4,921	8,139	2,826	22,999	1,505	959	..	896	42,245
Total, logs .. .. .	"	64,423	69,133	39,644	23,690	51,599	43,930 (a)	82	1,050	293,551
Value of logs .. .. .	£'000	9,228	9,068	6,669	2,363	3,510	4,607 (a)	20	123	(b)35,588
Hewn and other timber (not included above)—										
Firewood(c) (weight) .. ..	'000 tons	243	1,711	128	490	522	419 (a)	1	(a)(d)	(b)3,514
Other(e) (value) .. .. .	£'000	4,669	(a)1,262	940	(f)	(g)602	(a)306	..	(a)(h)	(b)7,779
Value of hewn and other timber	"	5,302	(i)8,813	1,244	(i)1,342	(g)1,790	(j)1,245	(a)4	1	(b)19,741
Other forest products(k) (total value) .. .. .	"	(l)260	(l)84	1	59	(m)9	8	..	..	(b)421
Total Value of Forest Products	"	14,790	17,965	7,914	(i)3,764	(n)5,552	5,860 (a)	24	(i)124	(b)55,993

(a) Incomplete; no details available of production from private land. (b) Incomplete: see footnotes to individual State and Territory figures. (c) Includes mill waste used as firewood. (d) Less than 500 tons. (e) Includes sleepers, transoms, girders, bridge timbers, mining timber, poles, piles, timber used for tannin extract, etc. (f) Not available. (g) Excludes timber used for tannin extract, details of which are not available for publication. (h) Less than £500. (i) Incomplete: see footnotes to individual items. (j) Includes an estimate of the value of timber taken from private land. (k) Includes charcoal (forest production only), tanning bark, essential oils, sandalwood, eucalyptus leaves, crude rutin, etc. (l) Incomplete, details of some production from private land not available. (m) Excludes value of sandalwood and substitutes, details of which are not available for publication. (n) Includes timber used for tannin extract and sandalwood and substitutes.

The following table gives particulars of the production of forest products in Australia.

## FOREST PRODUCTION(a): AUSTRALIA

Product	Unit	1957-58	1958-59	1959-60	1960-61	1961-62
Logs for sawing, peeling, slicing or pulping—						
Forest hardwoods .. ..	'000 cub. ft.	234,253	239,968	243,940	242,142	223,389
Brushwoods and scrubwoods ..	"	13,398	14,518	14,287	14,689	11,890
Softwoods—						
Indigenous forest "pines"—						
Cypress .. ..	"	14,167	13,861	14,457	13,483	12,351
Other .. ..	"	6,571	5,746	4,716	4,726	3,676
Plantation grown "pines" ..	"	29,671	38,858	42,859	39,850	42,245
Total logs .. ..	"	298,060	312,951	320,259	314,890	293,551
Value of logs .. ..	£'000	36,097	37,157	38,983	38,475	35,588
Hewn and other timber (not included above)—						
Firewood(b)(weight) .. ..	'000 tons	3,923	4,081	3,997	3,705	3,514
Other (value)(c) .. ..	£'000	9,299	8,191	8,066	8,320	7,779
Value of hewn and other timber(d)	"	20,162	20,479	20,347	20,544	19,741
Other forest products(e) (total value)	"	528	448	345	372	421
Total Value of Forest Products(f)	"	57,044	58,170	59,863	59,764	55,993

(a) Excludes some production from private land thought to be relatively small, details of which are not available. (b) See footnote (c) to previous table. (c) See footnotes (e), (f) and (g) to previous table. (d) Incomplete, see footnotes (f) and (g) to previous table. (e) See footnotes (k) and (m) to previous table. (f) Includes timber used for tannin extract and sandalwood and substitutes in Western Australia; but excludes timber other than logs and firewood in South Australia.

2. Value of Production.—(i) *General*. While statistics of both the gross value (at principal markets) and local value (at place of production) of the forestry industry are available, particulars of the value of materials used in the process of production are not available for all States. For this reason, values cannot be stated on a net basis, as has been done with most other industries.

(ii) *Gross and Local Values, 1961-62*. The following table shows gross and local values of forestry production for each State in 1961-62. A more detailed reference to the value of production of forestry and other industries in Australia, as well as a brief explanation of the terms used, will be found in Chapter XXIX. Miscellaneous.

GROSS AND LOCAL VALUE OF FORESTRY PRODUCTION, 1961-62  
(£'000)

State or Territory	Gross value(a)	Marketing costs	Local value(b)
New South Wales .. ..	14,790	359	14,431
Victoria .. ..	17,965	1,516	16,449
Queensland .. ..	7,914	2,019	5,895
South Australia .. ..	3,764	30	3,734
Western Australia .. ..	5,552	361	5,191
Tasmania .. ..	5,860	770	5,090
Northern Territory .. ..	24	} n.a. {	24
Australian Capital Territory ..	124		124
Australia .. ..	55,993	5,055	50,938

(a) Gross production valued at principal markets.

(b) Gross production valued at place of production.

(iii) *Local Values, 1957-58 to 1961-62.* In the following table, the local value of forestry production and the local value per head of population are shown by States for the years 1957-58 to 1961-62.

### LOCAL VALUE OF FORESTRY PRODUCTION

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(a)
LOCAL VALUE (£'000)							
1957-58 .. ..	15,341	15,253	9,414	3,587	5,112	4,547	53,471
1958-59 .. ..	15,574	16,148	8,356	4,103	5,067	4,887	54,358
1959-60 .. ..	15,169	17,618	8,469	3,929	5,085	5,556	56,001
1960-61 .. ..	15,300	16,713	7,149	3,729	5,167	5,735	53,975
1961-62 .. ..	14,431	16,449	5,895	3,734	5,191	5,090	50,938

### LOCAL VALUE PER HEAD OF POPULATION (£)

1957-58 .. ..	4.2	5.7	6.6	4.0	7.4	13.7	5.5
1958-59 .. ..	4.2	5.9	5.8	4.5	7.2	14.4	5.5
1959-60 .. ..	4.0	6.2	5.7	4.2	7.1	16.1	5.5
1960-61 .. ..	3.9	5.8	4.8	3.9	7.1	16.4	5.2
1961-62 .. ..	3.7	5.6	3.9	3.8	7.0	14.3	4.8

(a) Includes Northern Territory and Australian Capital Territory.

## § 5. Timber and Timber Products

1. *Mill Production of Timber.*—Particulars of logs treated and the production of sawn, peeled and sliced timber by sawmills and other woodworking establishments are shown in the following table. These figures have been compiled from the annual factory collections in each State which cover virtually all sawmills. The only omissions are some small portable mills operated by itinerants, e.g. sleeper cutters.

### OUTPUT OF AUSTRALIAN-GROWN TIMBER: ALL MILLS, 1961-62 (<sup>'000</sup> super. feet)

Particulars	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	Aust.(a)
LOGS TREATED (TRUE VOLUME)							
Hardwood ..	589,797	612,931	214,497	9,771	601,111	364,187	2,392,294
Softwood ..	148,147	73,008	128,321	258,892	18,059	13,207	639,634
<i>Total</i> ..	<i>737,944</i>	<i>685,939</i>	<i>342,818</i>	<i>268,663</i>	<i>619,170</i>	<i>377,394</i>	<i>3,031,928</i>

### SAWN, PEELED OR SLICED TIMBER PRODUCED FROM LOGS ABOVE

Hardwood ..	296,456	270,466	162,834	4,291	186,331	142,729	1,063,107
Softwood ..	68,106	28,953	58,700	120,738	6,448	6,071	289,016
<i>Total</i> ..	<i>364,562</i>	<i>299,419</i>	<i>221,534</i>	<i>125,029</i>	<i>192,779</i>	<i>148,800</i>	<i>1,352,123</i>

(a) Excludes Australian Capital Territory and Northern Territory.

The following table shows logs used, and sawn, peeled, and sliced timber produced, in Australia.

**OUTPUT OF AUSTRALIAN-GROWN TIMBER, ALL MILLS: AUSTRALIA(a)**  
(<sup>0</sup>000 super. feet)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
<b>LOGS TREATED (TRUE VOLUME)</b>					
Hardwood .. ..	2,625,797	2,728,183	2,793,399	2,672,080	2,392,294
Softwood .. ..	581,158	677,607	705,772	642,324	639,634
<i>Total</i> .. ..	<i>3,206,955</i>	<i>3,405,790</i>	<i>3,499,171</i>	<i>3,314,404</i>	<i>3,031,928</i>

<b>SAWN, PEELED OR SLICED TIMBER PRODUCED FROM LOGS ABOVE</b>					
Hardwood .. ..	1,127,150	1,158,799	1,208,595	1,152,995	1,063,107
Softwood .. ..	264,027	301,175	312,450	262,212	289,016
<i>Total</i> .. ..	<i>1,391,177</i>	<i>1,459,974</i>	<i>1,521,045</i>	<i>1,415,208</i>	<i>1,352,123</i>

(a) Excludes Australian Capital Territory and Northern Territory.

In addition to the mill production of timber shown in the preceding tables, a large amount of hewn and round timber, e.g. sleepers, piles, poles, fencing timber, timber used in mining, and fuel, is obtained directly from forest and other areas. Complete information in respect of the volume of this output is not available.

2. Veneers, Plywood, etc.—Cutting of timber for the manufacture of veneers, plywood etc., has been carried out in most States for a number of years. In recent years, this has been considerably extended, since plywood manufacture has allowed the use of some species unsuitable for sawing. Special attention has been paid to ensure that logs suitable for peeling are diverted to ply factories. However, because of insufficient supplies of Australian-grown logs, 43 per cent. of the logs used in 1961-62 were imported.

The following table shows the production of plywood.

**PLYWOOD PRODUCED**  
(<sup>0</sup>000 square feet:  $\frac{3}{8}$ -in. basis)

State	1957-58	1958-59	1959-60	1960-61	1961-62
New South Wales .. ..	45,647	56,378	62,701	64,930	56,184
Queensland .. ..	131,206	139,743	134,825	112,414	98,086
Other States .. ..	35,784	40,083	44,574	46,045	48,536
<i>Australia</i> .. ..	<i>212,637</i>	<i>236,204</i>	<i>242,100</i>	<i>223,389</i>	<i>202,806</i>

Of the total plywood produced in 1961-62, 153,382,000 square feet ( $\frac{3}{8}$ -in. basis) were classed as "Commercial", 31,012,000 as "Waterproof", 1,418,000 as "Case", and 16,994,000 as "Sliced Fancy".



During 1961-62, 504.2 million square feet ( $\frac{1}{16}$ -in. basis) of veneers were produced by the rotary process for the manufacture of plywood, and 221.1 million square feet ( $\frac{1}{16}$ -in. basis) were sold or added to stock, the bulk of which would eventually be used in the production of plywood. In addition, 60.2 million square feet of sliced veneers were produced.

3. **Manufactured Boards.**—(i) *Hardboard.* There were five factories producing hardboard in Australia during 1961-62 (two in New South Wales, and one in each of Victoria, Queensland and Tasmania), and during the three years ended 30th June, 1962, the following quantities were produced:—1959-60, 31,645,000 square yards; 1960-61, 31,085,000 square yards; and 1961-62, 28,772,000 square yards.

(ii) *Other Manufactured Boards.* Production of softboards (made of fibre), resin-bonded boards (made from wood chips, wood wool, sawdust, etc.) and other types of manufactured boards other than hardboards amounted to 3,862,000 square yards during 1961-62.

4. **Wood Pulp and Paper.**—(i) *Wood Pulp.* During 1961-62, seven wood pulp mills were operating in three States, and production was 152,175 tons of chemical pulp and 67,495 tons of mechanical pulp, a total of 219,670 tons. During the previous year, production was 148,640 tons of chemical pulp and 64,569 tons of mechanical pulp.

(a) *Victoria.* In Victoria, wood pulp is produced at Maryvale in Gippsland by a chemical process known as the Kraft or Sulphate process. The pulpwood used at this mill consists mainly of eucalypt timber below sawmilling quality, together with a quantity of plantation pine thinnings.

(b) *South Australia.* Three wood pulp mills operate in the south-eastern part of South Australia, using raw material in the form of logs from the State forests.

(c) *Tasmania.* In Tasmania, three mills are making pulp from indigenous hardwoods. At Burnie, on the north-west coast, a company is producing fine writing and printing paper, parchment and other specialty papers, and hardboard. A mill at Boyer, in the Derwent Valley, is the only producer of newsprint in Australia. Here wood pulp is produced from hardwoods drawn from State timber concession areas. A semi-chemical pulp mill has recently been completed at Geeveston, 37 miles south of Hobart. This plant utilizes eucalypt timber unsuitable for sawmilling from southern forests and, with its capacity of 25,000 tons of pulp a year, requires some 19 million super. feet of timber annually. The pulp from this mill is bulkloaded for shipping to Sydney where it is converted to paper and paper board.

(ii) *Paper and Paper Board.* Paper and paper board are manufactured in all States, but the greater part of the industry is in New South Wales, Victoria and Tasmania. During 1961-62, twenty-two paper mills were operating, ten in Victoria, four in New South Wales, three in Tasmania, two each in Queensland and South Australia and one in Western Australia. A wide variety of paper and paper board is produced in Australian mills. The table below gives details of the production of some of these items.

#### PRODUCTION OF PAPER PRODUCTS: AUSTRALIA

Type of paper	Quantity (tons)			Value (£'000)		
	1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
Newsprint .. ..	88,510	88,039	89,758	6,682	6,491	6,445
Blotting .. ..	800	755	487	145	133	84
Duplicating .. ..	5,804	7,055	5,156	916	1,176	834
Printing and writing ..	67,825	80,166	58,647	11,507	12,641	9,751
Wrapping—						
Kraft .. ..	66,451	98,607	108,313	9,000	12,226	13,228
Other .. ..	12,600	9,828	12,151	2,275	1,829	2,152
Felt and carpet felt ..	4,145	3,112	2,356	473	327	248
Paper boards .. ..	221,338	210,072	206,909	18,724	17,687	16,374

## § 6. Oversea Trade in Forest Products, Timber and Timber Products

1. Imports.—Quantities and values of forest products, timber and timber products imported into Australia during the years 1959–60 to 1961–62 are shown in the following table.

IMPORTS OF FOREST PRODUCTS, TIMBER AND TIMBER PRODUCTS:  
AUSTRALIA

Particulars	Unit of quantity	Quantity			Value (£A.'000 f.o.b.)		
		1959–60	1960–61	1961–62	1959–60	1960–61	1961–62
Logs not sawn—							
Softwoods(a) ..	'000 sup. ft.	3,714	1,872	2,024	117	58	68
Hardwoods(b) ..	"	60,010	58,460	33,650	1,585	1,715	985
Undressed timber—							
Dunnage ..	"	..	..	..	5	3	4
Softwoods(a), n.e.i.—							
Douglas fir ..	'000 sup. ft.	182,265	183,126	168,436	8,365	8,498	6,606
Radiata pine ..	"	43,500	33,462	24,913	1,631	1,213	900
Other ..	"	19,741	32,882	16,227	1,723	2,541	897
Hardwoods(b), n.e.i. ..	"	67,387	85,262	53,450	3,651	5,157	2,669
Box shooks, n.e.i. ..	"	610	567	641	39	33	48
Dressed timber ..	"	11,563	13,178	7,250	705	887	532
Veneers ..	'000 sq. ft.	13,192	18,755	15,978	147	185	190
Plywood ..	"	29,523	31,618	31,390	1,074	1,090	1,069
Tanning substances ..	cwt.	148,542	164,596	145,329	435	402	380
Sandalwood oil ..	lb.	1,402	1,540	1,508	8	9	14

(a) Non-pored woods.

(b) Pored woods.

Imports of softwood logs in recent years have come almost exclusively from the Solomon Islands and Sarawak, and more than two-thirds of the imports of hardwood logs have come from North Borneo. Imports of undressed softwood timber comprise mainly Douglas fir (Oregon pine) from Canada and the United States of America and Radiata pine from New Zealand. Imports of undressed hardwood timber come mainly from Malaya and Sarawak. Timbers from Scandinavian countries provide most of the dressed timber imports.

Imports of timber products are mainly veneers and plywoods. The Australian Trust Territory of New Guinea and Japan provide most of the plywood imports, and the United Kingdom and New Guinea supply about 54 per cent. of Australia's imports of veneer.

Tanning substances are the only other forest products imported in significant quantities. The most important of these is wattle bark produced in South Africa.

2. Exports.—Details of exports of Australian forest and timber products in the years 1959–60 to 1961–62 are given in the table below.

## EXPORTS OF AUSTRALIAN FOREST PRODUCTS, TIMBER AND TIMBER PRODUCTS(a)

Particulars	Unit of quantity	Quantity			Value (£A.'000 f.o.b.)		
		1959–60	1960–61	1961–62	1959–60	1960–61	1961–62
Logs not sawn	'000 sup. ft.	4,099	6,494	8,190	237	371	309
Undressed timber(b)—							
Sleepers ..	"	32,090	17,779	27,410	1,775	931	1,518
Fence posts, girders and pole blocks ..	"	614	387	879	43	31	51
Softwoods(c), n.e.i. ..	"	167	134	74	14	14	8
Hardwoods(d), n.e.i. ..	"	13,914	21,028	16,966	951	1,458	1,169
Dressed timber ..	"	1,467	1,021	1,274	193	142	184
Veneers ..	'000 sq. ft.	4,020	2,046	1,589	113	49	38
Plywood ..	"	754	1,101	898	86	124	107
Tanning substances ..	cwt.	138,130	63,582	88,659	351	182	256
Charcoal ..	"	6,249	5,712	6,831	27	22	25
Eucalyptus oil ..	'000 lb.	257	235	310	95	80	104
Acaroid resin, grass tree and yacca gum ..	cwt.	9,068	8,949	15,714	18	17	32

(a) Excludes re-exports.

(b) Excludes stumps and the like.

(c) Non-pored woods.

(d) Pored woods.

Of the exports of logs in 1961-62, 51 per cent. were consigned to New Zealand and 48 per cent. to Japan. In the same year, 42 per cent. of the sleepers exported were consigned to the United Kingdom and 26 per cent. to New Zealand, while of all undressed timber exported, 44 per cent. were consigned to New Zealand and 16 per cent. to the United Kingdom. Consignments to the United States of America accounted for 78 per cent. of the exports of tanning substances in 1961-62.

## CHAPTER XXIV

### FISHERIES

NOTE.—Further information on subjects dealt with in this chapter is contained in the annual printed bulletin *Primary Industries, Part II.—Non-Rural Industries and Value of Production* and in the annual mimeographed statistical bulletin *Fishing and Whaling*, particularly as regards types of fish, etc., caught.

#### § 1. Resources, Development and National Aspects

1. **Natural Resources.**—(i) *Edible Fauna.* (a) *Fish.* Australian fishery resources, by comparison with those of some other areas, are not large. It has been calculated that there are approximately 2,000 species of fish in Australia and the waters surrounding it (including freshwater species), but the stocks of each species are comparatively small. Australia lacks adequate resources of such highly productive species as the herrings, cods, halibuts and true salmon (except for the Tasmanian whitebait and acclimatized freshwater species) on which the major proportion of world fisheries production is based.

The marine life of northern Australia is similar to that of the south-east Asian region; for example, the giant perch (*Lates calcarifer*) of northern Australia is also taken in Thailand and Malaya, and the parrot fishes (*Labridae*) are also distributed over the region. Some similarities with the fishes of South Africa can also be noted. For instance, the barracouta (*Leionura atun*) of Australia is found also in South Africa. Mulletts, which form the basis of Australia's largest single species catch, occur throughout the world, as do the tunas.

Fishing is carried out continuously in estuarine, coastal and off-shore Australian waters in the east and south from Port Douglas in Queensland to Ceduna in South Australia, in Western Australia from Esperance to Shark Bay, and sporadically in the Onslow, Broome, Darwin and Karumba areas in the north. Most fishing is done in waters over the continental shelf, which varies greatly in width around the continent, but tuna is sometimes fished beyond the shelf. As in other countries, fisheries in Australia may be divided into three types: the estuarine fisheries, located in the tidal waters of rivers and coastal lakes; the pelagic fisheries which exploit species inhabiting the surface layers of the open ocean; and the demersal fisheries, which fish the bottom layers of the sea. The estuarine fisheries produce considerable quantities of the table varieties, such as mullets (*Mugil cephalus* and associated species), breams (*Acanthopagrus spp.*), and some crustaceans. In addition to these, there is a small freshwater commercial fishery, principally in New South Wales and South Australia, exploiting Murray cod (*Maccullochella macquariensis*) and golden perch (*Plectroplites ambiguus*). The pelagic fisheries produce species exploited during their seasonal migration, such as Australian "salmon" (*Arripis trutta*), which is a member of the perch-like group, or Perciformes, tunas (*Fam. Thynnidae, Katsuwonidae, Sardidae*), barracouta (*Leionura atun*) and mackerels (*Cybius spp.*). These fisheries, with the exception of some tuna, mackerel and reef fisheries, are concentrated in the temperate waters around the southern half of the continent. The off-shore demersal fisheries include those pursued on the reefs which may be found virtually right around the continent, and which yield such species as snapper (*Chrysophrys auratus*), the so-called "cods" (*Epinephelus, Choerodon, Callyodon spp.*), and associated species; those pursued on the trawling grounds, which produce species such as flathead (*Neoplatycephalus, Trudis spp.*), morwong (*Nemadactylus spp.*), John dory (*Zeus faber*), etc.; and the important fishery for edible shark (school shark, *Galeorhinus australis*, and gummy shark, *Mustelus antarcticus*), in south-eastern Australia.

(b) *Crustaceans.* Crustaceans taken in Australia include crayfish, prawns, crabs and freshwater lobsters. Crayfish (southern, *Jasus lalandei*; western, *Panulirus cygnus*; and eastern, *Jasus verreauxi*) is the most important crustacean exploited in Australia, and various species occur on the reefs of the continental shelf in all States. The commercial fishery, for technological reasons and through lack of knowledge of numbers, has not extended to the tropical species (*P. ornatus*, etc.), but is concentrated on species found around the southern

part of Australia. Prawns (*Penaeus* and *Metapenaeus* spp.) are taken in the estuarine, coastal and offshore waters of New South Wales and Queensland, and in the Shark Bay region of Western Australia. Crabs (*Scylla* and *Portunus* spp.) are taken mainly in Queensland and Western Australia, but small quantities are also taken in the other States. Fresh-water lobsters (*Euastacus serratus*) are caught in inland streams in New South Wales, and one species, marron, forms the basis of an amateur fishery in the south-west of Western Australia.

(c) *Molluscs*. Edible molluscs produced in Australia include oysters (mainly *Crassostrea commercialis*), scallops, mussels and some of the cephalopods (squid, octopus, cuttlefish). Naturally-grown oysters are produced in all States except South Australia. In New South Wales and, to a lesser extent, in Queensland, edible oysters are cultured commercially. Scallops (*Equichlamys bifrons*) are taken mainly in Tasmania but fishing for saucer scallops (*Amusium balloti*) is being developed in Queensland. The scallop resources in the Shark Bay area of Western Australia have not been developed, and are still the subject of scientific investigations. Mussels (*Mytilus planulatus*) are gathered mainly in Victoria. Small quantities of cephalopods, mainly squid (*Loligo* spp.), are produced in many localities. Other edible molluscs which have been taken from time to time include abalone (*Haliotis* spp.) and pipis (*Plebidonax deltoides*).

(ii) *Pearl-shell and Trochus-shell*. Pearl-shell (*Pinctada maxima*), which is used for the manufacture of buttons, knife handles, etc., is fished in the tropical waters of Australia from Onslow in Western Australia to Cairns in Queensland. Trochus-shell is found mainly on coral reefs off the Queensland coast, although very small quantities occur in Western Australia.

(iii) *Whales*. Baleen whales, particularly humpback (*Megaptera nodosa*), migrate during winter from their summer feeding grounds in Antarctic waters to their breeding and nursery grounds in warmer waters off the north-east and north-west coasts of Australia. Since the war, the Australian whaling industry has exploited humpback whales on both coasts during the winter migrations. However, the same stocks are available to Antarctic whalers in the summer, and this, together with their slow reproduction rate, has resulted in the stocks of Antarctic humpback whales being subjected to exploitation greater than they can sustain.

Sperm whales (*Physeter catodon*) have been taken in the south-eastern waters of Western Australia since 1955.

(iv) *Marine Flora*. Seaweeds of possible commercial value occur in coastal waters of New South Wales, Tasmania and Western Australia. During 1962, a venture was launched to exploit seaweed (*Macrocystis pyrifera*) beds for their derivatives, such as agar and alginates, in Tasmanian waters.

2. *Development of Fisheries in Australia*.—At the beginning of this century, Australian fisheries were principally estuarine and onshore, and the deeper offshore resources were comparatively unknown. Vessels were generally sail-powered, and catching and preservation methods were primitive.

From 1904 to 1914, a Commonwealth vessel was engaged in research into fisheries resources around Australia. As a result of this exploration, trawling in the eastern waters began in 1915. There have been several years of high production from this fishery, but in each case the peak year was followed by a period of low production. Danish seine trawlers entered this fishery in 1936. In 1958–59, steam trawling vessels used in this area were taken out of service, and a modern diesel trawler was introduced. This fishery is now stabilized at a relatively low level of production.

The tuna fishery began with the establishment in 1937 of a cannery at Narooma in New South Wales to exploit the occurrences, mainly of southern bluefin tuna (*Thunnus thynnus maccoyii*), which had been revealed by aerial surveys in 1936. However, landings were insignificant for over a decade. In 1950, the Commonwealth Government sponsored the visit of a Fijian tuna clipper to instruct fishermen in the pole-and-live-bait method of catching tuna. Development of the South Australian tuna fishery followed the visit of two American tuna experts in 1954. Recent developments in tuna fishing include the use of gill netting and long-lining. Techniques of taking species of tuna other than southern bluefin are being investigated.

The crayfishery, which is pursued off south-eastern Australia and off the west coast of Western Australia, was for many decades on a small scale. It was not until 1944 that the major sector, the western crayfishery, began to develop into what is now Australia's most productive single marine resource. Between 1944 and 1947, production from the shallow areas of Houtman's Abrolhos was used for canning for the armed forces. From 1948 to 1953, mechanization of the fleet was introduced progressively and deeper waters were worked. The United States market for frozen craytails was established during this period. The period 1954 to 1962 saw the introduction of larger and more powerful vessels, of conservation measures designed to maximize the sustainable yield, and of increased processing facilities. In the southern crayfishery, development has followed similar lines, but on a smaller scale because of the smaller crayfish numbers.

The prawn fishery was pursued for many decades on a small scale, but it was not until the discovery of the need for prawns to spawn at sea that interest developed in catching them during this phase of their life cycle. The discovery in 1947 of stocks of prawns in Stockton Bight and off Evans Head (both in New South Wales) initiated the development of deep-sea prawning in Australia. Since that time, the prawn fishery has expanded to the offshore grounds. In 1962, a commercial prawn fishery was commenced in Shark Bay, Western Australia.

Whaling has been undertaken from time to time in Australia since the early days of settlement. Humpback whaling has been carried out from stations on the west coast of Australia since 1949, and off the east coast since 1952. A station was established on Norfolk Island in 1956. Prior to 1939, despite large-scale mechanized whaling in the Antarctic, whale stocks were able to sustain themselves. However, by the end of the 1962 whaling season, whale stocks had been depleted to the extent that the stations on the east coast and Norfolk Island had either gone into liquidation or otherwise disposed of their assets. On the west coast, the station at Albany, by 1962, had virtually completely changed its operations to sperm whaling, and the station at Carnarvon was extending its activities into other fisheries fields.

**3. Government Administration of the Fishing Industry.**—The fisheries within territorial waters (that is, within three miles of the shore) are administered by State departments and Territory administrations. The Fisheries Division of the Department of Primary Industry develops and administers fisheries in extra-territorial waters and co-ordinates fisheries administration.

The fisheries legislation of each State and Territory and of the Commonwealth provides for the licensing of boats used in commercial fishing operations and of commercial fishermen. The provisions are broadly similar in each State, the general requirement being that any person who takes fish for sale, and any boat used in such fishing operations, must be licensed in the State or Territory concerned. Some States extend the licensing requirements to amateur or part-time fishermen. Australian nationals who fish commercially outside the territorial waters of a State or Territory, but within Australian waters as proclaimed under the Commonwealth *Fisheries Act 1952–1959*, are required to take out licences and to register their boats under that Act.

Fish stocks inhabiting Australian waters are a common property resource. With the exception of the Western Australian crayfishery and the Shark Bay prawn fishery, there is no restriction on recruitment of men and vessels to any fishery. It has, therefore, been necessary for governmental action to be taken in an endeavour to provide rules of operation in certain fisheries which are vulnerable to depletion. The policy basic to the management of these fisheries is the greatest sustainable yield consistent with economic operations. Where a fishery, for economic reasons, is not producing its maximum yield, efforts to discover new methods of utilization of the catch are made.

The Commonwealth *Pearl Fisheries Act 1952–1953* aims at the management of the pearl-shell resources in accord with Australia's proclamation of sovereign rights over the natural resources of the sea bed and subsoil to the 100 fathom line. It requires that all pearlers, vessels, etc., must be licensed, and prohibits the removal of live shell from Australian waters except with the written permission of the Minister for Primary Industry.

The Commonwealth controls whaling from Australian stations in accordance with the conditions laid down by the International Whaling Commission. This Commission was established by the International Convention for the Regulation of Whaling, 1946, to organize world-wide conservation measures.

4. **Research.**—The aim of all fisheries research in Australia is to achieve the greatest sustainable yield of fish and to assist in the development of an efficient industry. To this end, much of the biological research already undertaken has been directed at formulating recommendations for conservation measures in various fisheries. Future work is expected to concentrate on the discovery, development and conservation of new fisheries, on the expansion of under-exploited fisheries, on the economics of the industry and on the improvement of equipment.

The organizations, committees, etc., in Australia at present engaged in research into fisheries matters are:—

- (i) Division of Fisheries and Oceanography, C.S.I.R.O. (biological and oceanographic research);
- (ii) Division of Food Preservation, C.S.I.R.O. (research into handling, storage, processing and transport of fish);
- (iii) the several State fisheries departments (general biological research);
- (iv) Fisheries Division, Department of Primary Industry (economic and management research, gear technology, extension work to the industry);
- (v) Southern Pelagic Project Sub-committee and the Western Fisheries Sub-committee of the Commonwealth-State Fisheries Conference (co-ordination and planning of research); and
- (vi) Advisory Committee to the Minister for Primary Industry on the Fisheries Development Trust Account (consideration and recommendation to the Minister on projects to be subsidized from the Account, which was set up from the sale of the Commonwealth Government's whaling assets in 1956).

## § 2. Collection and Presentation of Statistics

Statistics presented in this chapter have been collected by a number of authorities. The various State fisheries authorities have supplied, through the Deputy Commonwealth Statisticians in the States, the details of employment, boats, equipment, and production of the general fisheries and the pearl and shell fisheries. The Fisheries Division of the Department of Primary Industry has supplied particulars of the whaling industry. Statistics of the processing of general fisheries products and of overseas trade in the products of fishing and whaling have been compiled in the Commonwealth Bureau of Census and Statistics.

The statistics refer, in general, to fiscal years. However, pearl and shell fishing data refer to the season ended in the fiscal year shown. Whaling statistics are shown by calendar years, and refer to the season (from May to October) in the calendar year. All overseas trade information refers to fiscal years.

In the preparation of Australian fisheries production statistics, the quantities of individual products are, generally, in terms of the form in which they are taken from the water. For example, the statistics of fish production published in this chapter are in terms of "estimated live weights" which are calculated from landed weights by using conversion factors for each species in each State. These conversion factors allow for the fact that the quantities of fish reported are frequently in a gutted, headed and gutted, or otherwise reduced condition. Crustaceans are reported on a "whole weight" basis, and molluscs (edible) on a "gross (in-shell) weight basis". The figures of pearl-shell and trochus-shell refer to the actual quantities of dry shell for sale and exclude the weight of the fish.

The catch is generally shown according to the State in whose waters it was taken. However, a quantity of sharks and crayfish taken by Victorian-based fishermen in Tasmanian waters, but marketed in Victoria, is included in the Victorian catch, since the economy of that State is most directly affected. Similarly, pearl-shell taken by Queensland luggers operating in Northern Territory waters is included in the Queensland take. Pearl-shell taken by Japanese fishermen operating in Australian waters is excluded from Australian production figures, although the quantities taken are shown as a footnote to the table on page 1131.

Details of production given in this chapter refer in most cases only to the recorded commercial production. In view of the importance of amateur fishermen in certain types of fishing, details shown cannot be taken as representing the total catch. In addition, it is likely that the figures shown understate to some extent the full commercial catch, because no information is available on fish taken for sale by persons not licensed as professional fishermen.

The details of employment, equipment, and production of the whaling industry shown in this chapter include whaling operations based on Norfolk Island, but for the purposes of Australia's overseas trade statistics Norfolk Island is regarded as an overseas country. The production figures do not include production from sperm whales, but sperm whale products are included in the statistics of overseas trade in whale products.

### § 3. The Fishing Industry

1. **Persons Engaged in Fisheries.**—In the following table, which shows particulars collected in the Population Censuses of Australia at 30th June, 1947, 1954 and 1961, the numbers of persons whose industry was stated to be "fishing and whaling" are shown together with the numbers engaged in all primary industries and the total work force.

#### PERSONS ENGAGED IN FISHERIES: AUSTRALIA

Particulars	Census, 30th June—		
	1947	1954	1961
Persons engaged in—			
Fishing and whaling .. .. .	10,656	8,637	8,124
All primary industries .. .. .	563,607	560,100	472,670
Total work force .. .. .	3,196,431	3,702,022	4,225,098
Persons engaged in fishing and whaling as a proportion of—			
All primary industries .. .. . %	1.9	1.5	1.7
Total work force .. .. . %	0.3	0.2	0.2

2. **General Fisheries.**—(i) *Employment, Boats and Equipment.* The boats used for the estuarine fisheries are mostly small vessels, propelled by diesel or petrol engines of low power. The offshore vessels range in length from 30 feet to 120 feet and are almost invariably powered by diesel engines. Many of them have insulated holds to carry fish in ice, and some of the crayfish boats are fitted with wells in which the catch is kept alive. Some vessels have dry refrigeration, and others, including some of the tuna live-bait pole-fishing vessels, are equipped with brine refrigeration.

Almost every type of fishing equipment is used. The following table sets out the main types of fish, crustaceans and molluscs and the equipment most commonly used.

#### FISHING EQUIPMENT USED IN AUSTRALIA

Type of fish	Equipment used
Mullet .. .. .	Beach seine, gill net
Shark (edible) .. .. .	Long-lines
Salmon .. .. .	Beach seine
Barracouta .. .. .	Trolling lines
Flathead .. .. .	Danish seine, otter trawl
Snapper .. .. .	Long-lines, traps
Morwong .. .. .	Danish seine, otter trawl, traps
Whiting .. .. .	Handlines, Danish seine
Garfish .. .. .	Gill net, beach seine
Mackerel .. .. .	Trolling lines
Tuna(a) .. .. .	Poles and live-bait, trolling lines
Prawns .. .. .	Otter trawl, beam trawl, seine net
Crayfish .. .. .	Pots, traps
Scallops .. .. .	Dredge, otter trawl

(a) Lampara nets and purse seines are used for taking live bait for tuna.



The following two tables show details of persons, boats and equipment employed in the taking of fish, crustaceans and edible molluscs, and data relating to oyster leases. These statistics are derived mainly from the licensing records of the various State fisheries authorities. Because the definitions and licensing procedures used by these authorities are not uniform, the statistics should not be used to compare the relative productivities of the fishing industries in the several States.

Some of the figures for 1959-60, 1960-61 and 1961-62 are not comparable with those for previous years for the following two reasons:—in Queensland, numbers of men employed and boats engaged now refer only to those licensed to take fish for sale, whereas previously all licensed men and boats were included; and in South Australia, the value of boats and equipment has been adjusted upward compared with previous years.

Boats and persons engaged in more than one type of fishing are classified according to their main activity, and so may be classified differently from one year to the next.

The table below gives details by States for 1961-62.

**EDIBLE FISHERIES: BOATS AND EQUIPMENT IN USE, PERSONS ENGAGED, ETC., 1961-62**

Particulars	Unit	N.S.W.	Vic.	Q'ld	S.A.	W.A. (a)	Tas.	N.T.	Aust.
General fisheries(b)—									
Boats engaged ..	No.	2,702	794	1,648	1,650	1,119	514	33	8,460
Value of boats and equipment ..	£'000	2,762	1,623	1,940	1,700	3,711	1,124	39	12,899
Persons engaged ..	No.	2,447	1,045	2,314 (c)	6,848	2,039	1,122	63	15,878
Edible oyster fisheries—									
Boats engaged ..	No.	1,302	(d)	46	..	1	(d)	(d)	1,349
Value of boats and equipment ..	£'000	467	(d)	17	..	(e)	(d)	(d)	484
Persons engaged ..	No.	880	(d)	107	..	6	(d)	(d)	993
Leases granted ..	No.	4,983	5	241	..	..	..	2	5,231
Length of foreshore in leases ..	'000 yds	897	16	(f)	..	..	..	5	(g) 918
Off-shore leases ..	acres	6,710	330	(f)	..	..	..	..	(g) 7,040

(a) Year ended December, 1961. (b) Excludes edible oyster fisheries but includes crustacean and other mollusc fisheries. (c) Includes licensed amateur fishermen. (d) No boats or persons had oyster fishing as their main activity in 1961; see explanation above. (e) Less than £500. (f) Not available. (g) Excludes Queensland.

The following table shows similar information for Australia for the years 1957-58 to 1961-62.

**EDIBLE FISHERIES: BOATS AND EQUIPMENT IN USE, PERSONS ENGAGED, ETC., AUSTRALIA**

Particulars	Unit	1957-58	1958-59	1959-60	1960-61	1961-62
General fisheries(a)—						
Boats engaged ..	No.	10,237	10,135	7,890	7,756	8,460
Value of boats and equipment ..	£'000	7,476	8,344	10,762	12,411	12,899
Persons engaged ..	No.	20,871	21,015	13,319	14,955	15,878
Edible oyster fisheries(b)—						
Boats engaged ..	No.	1,070	1,122	1,213	1,449	1,349
Value of boats and equipment(c)	£'000	171	377	368	412	484
Persons engaged ..	No.	909	812	917	822	993
Leases granted ..	No.	5,042	4,965	4,897	5,085	5,231
Length of foreshore in leases(d)	'000 yds	893	867	860	920	918
Off-shore leases(d)	acres	5,415	5,508	5,537	6,051	7,040

(a) Excludes edible oyster fisheries (except in Tasmania for years prior to 1959-60), but includes crustacean and other mollusc fisheries. Figures for 1959-60, 1960-61 and 1961-62 are not comparable with those for previous years; see explanation above. (b) Excludes particulars for Western Australia and Tasmania for years prior to 1959-60 and for the Northern Territory for all years except 1960-61 and 1961-62. (c) Figures for 1957-58 exclude the value of stakes, timber frames, etc., used on oyster leases in New South Wales. (d) Excludes Queensland.

(ii) *Production. (a) Fish.* The following table shows details of the production of the main types of fish caught in each State and the Northern Territory in 1961-62.

**FISH: PRODUCTION BY TYPE, 1961-62**  
(\*000 lb. estimated live weight)

Type	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
<b>Marine types—</b>								
Mullet ..	5,880	964	4,471	675	1,244	7	1	13,242
Australian salmon ..	1,384	636	..	1,050	5,543	2,921	..	11,534
Tuna ..	3,131	1	6	7,420	51	5	2	10,616
Shark ..	1,666	(a) 3,916	31	1,582	501	(a) 994	1	8,691
Barracouta ..	24	4,725	..	..	..	2,061	..	6,810
Flathead ..	3,940	2,318	150	..	16	34	..	6,458
Snapper ..	1,803	279	97	505	1,072	..	..	3,756
Whiting ..	416	402	450	1,675	570	..	..	3,513
Morwong ..	2,368	318	..	84	..	3	..	2,773
Leatherjacket ..	2,120	30	..	..	43	(b)	..	2,193
Mackerel ..	188	..	1,355	..	83	2	3	1,631
Garfish ..	251	479	110	505	43	77	..	1,465
Bream ..	547	329	378	52	73	(b)	3	1,382
Ruff ..	..	20	..	390	778	..	..	1,188
Tailor ..	259	..	702	..	187	..	..	1,148
Luderick ..	865	72	83	..	..	..	..	1,020
Other ..	3,560	1,486	1,638	1,252	1,452	155	237	9,780
<i>Total, Marine</i> ..	28,402	a 15,975	9,471	15,190	11,656	(a) 6,259	247	87,200
<b>Freshwater types</b> ..	561	249	(c)	450	..	(b)	..	(d) 1,260
<b>Grand Total</b> ..	28,963	a 16,224	(d) 9,471	15,640	11,656	(a) 6,259	247	d 88,460

(a) 1,261,000 lb. taken by Victorian fishermen in Tasmanian waters is included in Victoria.  
(b) Less than 500 lb. (c) Not available. (d) Excludes freshwater fish caught in Queensland, particulars of which are not available.

The total Australian production of these more common types of fish is shown in the following table for the years 1957-58 to 1961-62.

**FISH: PRODUCTION BY TYPE, AUSTRALIA**  
(\*000 lb. estimated live weight)

Type	1957-58	1958-59	1959-60	1960-61	1961-62
<b>Marine types—</b>					
Mullet ..	11,566	14,063	12,340	11,362	13,242
Australian salmon ..	10,561	8,543	7,601	6,630	11,534
Tuna ..	3,230	5,493	7,099	9,767	10,616
Shark ..	8,241	7,375	8,457	7,636	8,691
Barracouta ..	3,903	4,300	5,871	5,981	6,810
Flathead ..	4,108	4,599	4,902	5,141	6,458
Snapper ..	3,144	3,115	4,602	4,684	3,756
Whiting ..	3,000	2,990	3,297	3,267	3,513
Morwong ..	3,103	2,572	2,329	2,258	2,773
Leatherjacket ..	1,658	1,866	2,476	2,516	2,193
Mackerel ..	1,734	2,193	1,641	1,779	1,631
Garfish ..	1,139	1,079	1,024	1,315	1,465
Bream ..	1,064	1,207	1,123	1,236	1,382
Ruff ..	1,563	1,860	1,506	1,288	1,188
Tailor ..	894	845	1,199	1,407	1,148
Luderick ..	1,025	1,063	1,199	1,096	1,020
Other ..	9,815	8,927	9,819	10,137	9,780
<i>Total, Marine</i> ..	69,748	72,090	76,485	77,500	87,200
<b>Freshwater types</b> ..	2,225	2,293	1,612	(a) 1,597	(a) 1,260
<b>Grand Total</b> ..	71,973	74,383	78,097	(a) 79,097	(a) 88,460

(a) Excludes freshwater fish caught in Queensland, particulars of which are not available  
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(b) *Crustaceans*. In terms of gross value of catch, the importance of crustaceans has increased in recent years, and in 1961-62 was greater than that of fish. The crayfish is the most important crustacean. The bulk of Australian production of crayfish is exported, nearly all going to the United States of America. Details of the production of crustaceans in each State and the Northern Territory in 1961-62 are shown in the following table.

**CRUSTACEANS: PRODUCTION BY TYPE, 1961-62**  
(\*000 lb. whole weight)

Type	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	Aust.
Crayfish ..	(a) 398	(b) 1,676	(c) 58	4,025	19,238	(b) 3,426	..	28,821
Prawns ..	4,678	4	4,400	..	239	..	1	9,322
Crabs ..	190	..	625	..	59	..	1	875
<b>Total ..</b>	<b>5,266</b>	<b>(b) 1,680</b>	<b>5,083</b>	<b>4,025</b>	<b>19,536</b>	<b>(b) 3,426</b>	<b>2</b>	<b>39,018</b>

(a) Includes catch of freshwater lobster (14,000 lb. in 1961-62). (b) The catch of crayfish by Victorian fishermen in Tasmanian waters (538,000 lb. in 1961-62) is included in Victoria. (c) Includes take of shovel-nosed lobster (4,000 lb. in 1961-62).

The following table shows details of the production of crustaceans in Australia in the years 1957-58 to 1961-62.

**CRUSTACEANS: PRODUCTION BY TYPE, AUSTRALIA**  
(\*000 lb. whole weight)

Type	1957-58	1958-59	1959-60	1960-61	1961-62
Crayfish(a) ..	21,991	26,314	28,023	27,494	28,821
Prawns ..	4,687	6,751	7,749	6,529	9,322
Crabs ..	826	906	1,044	787	875
<b>Total ..</b>	<b>27,504</b>	<b>33,971</b>	<b>36,816</b>	<b>34,810</b>	<b>39,018</b>

(a) Includes freshwater lobster caught in New South Wales and shovel-nosed lobster taken in Queensland.

(c) *Molluscs (edible)*. Details of the production of molluscs in each State and the Northern Territory in 1961-62 are shown in the table below.

**MOLLUSCS(a): PRODUCTION BY TYPE, 1961-62**  
(\*000 lb. gross (in shell) weight)

Type	N.S.W.	Vic.	Q'land	W. Aust.	Tas.	N.T.	Aust.
Oysters ..	12,204	65	323	10	1	10	12,613
Scallops ..	..	..	400	..	4,772	..	5,172
Mussels ..	..	646	..	..	..	..	646
Squid ..	..	196	117	6	..	..	319
Octopus ..	..	57	..	1	..	..	58
Cuttlefish ..	..	..	..	7	..	..	7
<b>Total ..</b>	<b>12,204</b>	<b>964</b>	<b>840</b>	<b>24</b>	<b>4,773</b>	<b>10</b>	<b>18,815</b>

(a) Excludes pipis taken in New South Wales, details of which are not available for publication.

The following table shows the production of molluscs in Australia in the years 1957-58 to 1961-62.

### MOLLUSCS(a): PRODUCTION BY TYPE, AUSTRALIA

(\*000 lb. gross (in-shell) weight)

Type	1957-58	1958-59	1959-60	1960-61	1961-62
Oysters .. .. .	(b) 10,562	bc 12,885	(c) 12,690	14,220	12,613
Scallops .. .. .	(b) 4,207	(b) 4,786	(b) 6,105	6,896	5,172
Mussels .. .. .	..	..	87	394	646
Squid .. .. .	134	225	210	228	319
Octopus .. .. .	..	2	52	36	58
Cuttlefish .. .. .	..	57	60	34	7
Abalone .. .. .	2	..	..	..	..
<b>Total(d) .. .. .</b>	<b>14,905</b>	<b>17,955</b>	<b>19,204</b>	<b>21,808</b>	<b>18,815</b>

(a) Excludes pipis, particulars of which are not available for publication. (b) Excludes Western Australia. (c) Excludes Northern Territory. (d) Incomplete; see notes to individual types.

(iii) *Marketing.* The greater part of Australian fisheries production is marketed fresh or frozen. For practical purposes, the whole of the tuna and Australian "salmon" catches are canned, as is a large proportion of the barracouta catch.

Marketing arrangements for fresh fish vary from State to State. In New South Wales, fish marketing is controlled by the Chief Secretary's Department, which operates the Metropolitan and Wollongong fish markets. In other coastal centres of New South Wales, Fishermen's Co-operatives may become registered as local fish markets. Fish for industrial use does not pass through any of these markets. The Queensland Fish Board sells all production on behalf of fishermen in that State, and has branches in 18 centres, as well as depots at eight others. The Board also purchases fish on its own account to stabilize prices. In Victoria, Western Australia and Tasmania, the marketing of fish is undertaken through agents. In South Australia, the great majority of the fishermen are members of the South Australian Fishermen's Co-operative Ltd., which handles the whole of their production.

Quick-freezing is widely used at sea and ashore to preserve fisheries products before delivery to consumers. The main techniques employed in Australia are brine freezing, which is used in the tuna and salmon fisheries, and air blast freezing, which is used chiefly for crayfish and scallops. Cold preservation with ice is still widely used.

(iv) *Processing.* Fish canning in Australia on a modern scale dates from 1937, prior to which the only fish canning carried out was on an occasional basis in factories handling other foodstuffs. In 1961-62, there were 20 fish canneries operating in Australia. The main canneries handle tuna (Eden, Melbourne, Port Lincoln), salmon (Eden, Melbourne, Margate, Port Lincoln, Adelaide, Albany, Perth), and barracouta (Melbourne, Margate, Portland). A long-established general cannery in Sydney handles a small quantity of tuna each year, as well as prawns and fish paste, and a general cannery in Melbourne produces paste and other fish products.

Apart from canning, other processes used on fish products include smoking and bottling. These processes take place only on a small scale.

There are few by-products derived from fish, crustaceans, and molluscs taken in Australia. Small quantities of fish meal are produced from scrap products. Oil from the livers of sharks was produced on a small scale until 1962, when cheaper substitutes became available.

The following table gives further details of fish processing in Australia during the years 1957-58 to 1961-62.

### FISH PROCESSING (EXCEPT FREEZING): AUSTRALIA

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Number of factories .. ..	14	18	19	18	20
Fish used(a)—	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Whole .. ..	9,293	10,603	12,507	13,737	15,613
Headed and/or gutted .. ..	5,600	4,825	3,773	3,758	6,354
<i>Estimated live weight equivalent(b)</i> .. ..	15,900	16,300	16,900	18,200	23,100
Production(c)—					
Canned fish(d)—					
Australian salmon .. ..	5,198	4,756	4,550	3,480	5,818
Tuna .. ..	1,300	1,609	1,983	3,070	3,629
Other .. ..	1,358	1,417	1,585	1,647	2,473
<i>Total</i> .. ..	7,856	7,782	8,118	8,197	11,920
Smoked fish .. ..	439	286	296	301	172
Fish paste .. ..	1,700	1,314	1,379	1,261	1,037
Fish meal(e) .. ..	1,294	1,442	1,718	2,041	2,633

(a) Fish used for canning (including fish loaf), smoking and the manufacture of fish paste, but excluding the weight of oysters, other shellfish and crustaceans used for canning. (b) The weight of headed and/or gutted fish is taken as 85 per cent. of live weight. (c) Excludes canned crayfish, lobsters, prawns, oysters and clams, details of which are not available for publication. (d) Includes fish loaf, fish cakes, etc. (e) Excludes whale meal.

3. Pearls, Pearl-shell and Trochus-shell.—(i) *Employment, Boats and Equipment.* Ketch-rigged luggers about 55 feet long and with crews of 8 to 14 members are used for pearl and shell fishing around Australia. Divers using suits collect the shells from the sea bed, at depths ranging from 3 to 45 fathoms. Details of employment of persons and equipment in the shell fisheries in 1961-62 are contained in the following table.

### PEARL-SHELL AND TROCHUS-SHELL: BOATS AND EQUIPMENT IN USE, PERSONS ENGAGED, 1961-62

Particulars	Unit	Q'land	W. Aust.	N.T.	Aust.(a)
Boats engaged .. ..	No.	36	17	3	56
Value of boats and equipment .. ..	£'000	155	82	17	254
Persons engaged .. ..	No.	500	187	37	724

(a) Excludes Japanese pearlers operating in Australian waters.

The following table gives similar details for Australia for the years 1957-58 to 1961-62.

**PEARL-SHELL AND TROCHUS-SHELL: BOATS AND EQUIPMENT IN USE, PERSONS ENGAGED, AUSTRALIA (a)**

Particulars	Unit	1957-58	1958-59	1959-60	1960-61	1961-62
Boats engaged .. ..	No.	151	110	85	85	56
Value of boats and equipment ..	£'000	790	647	515	467	254
Persons engaged .. ..	No.	1,487	1,419	1,120	995	724

(a) Excludes Japanese pearlers operating in Australian waters.

(ii) *Production.* The production of cultured pearls was introduced into Australia in 1956, when a station was established off the north coast of Western Australia. The industry has since expanded, and in 1962, there were nine pearl culture farms in operation in Queensland and Western Australia. Particulars of cultured pearl production are not available for publication.

In recent years, plastics have replaced pearl-shell in many uses. However, since the introduction of pearl culture, live pearl-shell has been in demand for this purpose. The following table gives details of pearl-shell and trochus-shell production in Australia in the years 1957-58 to 1961-62.

**PEARL-SHELL AND TROCHUS-SHELL: PRODUCTION**  
(<sup>0</sup>000 lb.)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
<b>Pearl-shell(a)—</b>					
Queensland(b) .. ..	1,131	889	1,082	1,821	1,008
Western Australia(c) ..	2,218	1,687	1,138	1,270	802
Northern Territory(b) ..	753	314	188	222	147
<i>Australia</i> .. ..	<i>4,102</i>	<i>2,890</i>	<i>2,408</i>	<i>3,313</i>	<i>1,957</i>
<b>Trochus-shell—</b>					
Queensland(b) .. ..	1,207	887	847	309	457
Western Australia(c) ..	22	29	22	10	..
<i>Australia</i> .. ..	<i>1,229</i>	<i>916</i>	<i>869</i>	<i>319</i>	<i>457</i>

(a) Excludes pearl-shell taken by Japanese pearlers operating in Australian waters. The quantities taken were as follows:—1957-58, 1,572,000 lb.; 1958-59, 1,064,000 lb.; 1959-60, 763,000 lb.; 1960-61, 860,000 lb.; 1961-62, 813,000 lb. (b) Season ended January of years shown. Shell taken by Queensland luggers operating in Northern Territory waters is included in Queensland. (c) Season ended December of years shown.

Particulars of the production of natural pearls in Australia are not available.

4. *Whaling.*—The whaling industry is highly mechanized. Standard equipment includes aircraft to locate whales, steam and diesel powered catchers of about 100 to 125 feet in length, and tow-boats.

Whale meat is marketed as pet food. Oil from baleen whales is used in the manufacture of margarine, soap and cosmetics. Oil from sperm whales is used in the manufacture of soap, plastics and watch lubricants, and in automatic transmission systems in motor cars.

In 1962, 591 sperm whales were taken off Western Australia, but particulars of the production from sperm whales are not available. The table below gives further details of the whaling industry in Australia and Norfolk Island during the years 1958 to 1962.

### WHALING STATISTICS(a) AUSTRALIA AND NORFOLK ISLAND

(Source: Fisheries Division, Department of Primary Industry)

Particulars	Unit	1958	1959	1960	1961	1962
Stations operating .. ..	No.	5	5	5	5	5
Chasers engaged .. ..	"	12	13	(b) 14	(c) 18	(d) 16
Persons employed(e)—						
At sea .. ..	"	157	165	155	175	137
Ashore .. ..	"	440	468	445	260	179
Types of whales taken—						
Humpback .. ..	"	1,807	1,660	1,525	1,481	720
Blue .. ..	"	2	12	2	..	..
Bryde .. ..	"	3	..	..	2	..
Sei .. ..	"	..	..	..	..	2
Fin .. ..	"	..	1	..	..	..
Sex of whales taken—						
Males .. ..	"	1,085	970	868	879	407
Females .. ..	"	727	703	659	602	315
<i>Total Whales Taken</i> .. ..	"	1,812	1,673	1,527	(f) 1,483	(g) 722
<i>Humpback Equivalent(h)</i> ..	"	1,813	1,691	1,530	1,482	(g) 721
Quota of whales(h) .. ..	"	1,960	2,080	1,850	1,560	1,470
Whale oil produced—						
Quantity .. ..	Barrel(i)	97,698	88,415	78,378	66,675	(j) 31,021
Value .. ..	£'000	1,424	1,326	1,136	972	(j) 362
Value of by-products (meal, meat, solubles, etc.) .. ..	"	442	401	317	332	(j) 182
Average production of oil per equivalent humpback whale ..	Barrel(i)	53.9	52.3	51.2	45.0	(k) 42.4
Average length of whales processed .. ..	ft	40.8	40.3	40.3	38.7	38.0

(a) Statistics of whales taken and processed and of oil and by-products produced exclude details of sperm whales. (b) Includes 2 two-man catchers. (c) Includes 3 tow-boats and 4 aircraft. (d) Includes 1 tow-boat and 4 aircraft. (e) Estimated. (f) The sex of 2 whales processed was not recorded. (g) Excludes 4 blue and 2 bryde whales taken, under special permits, for scientific research. (h) For quota purposes, 1 blue whale is taken as the equivalent of 2 fin, 2½ humpback, 6 sei or 6 bryde whales. (i) 6 barrels = 1 ton. (j) Includes produce from whales taken for scientific research. (k) Taking account of whales taken for scientific research.

5. Value of Production.—(i) *Gross Value of Products.* The following table shows details of gross values of production at principal markets of edible fishes products, pearl-shell, and trochus-shell in each State and the Northern Territory in 1961–62.

## FISHERIES PRODUCTION: GROSS VALUE, 1961–62

(£'000)

Product	N.S.W.	Vic.(a)	Qld	S. Aust.	W. Aust.	Tas.(a)	N.T.	Aust.
Fish(b) .. ..	2,016	1,575	670	870	666	255	23	6,075
Crustaceans .. ..	837	406	678	720	3,879	711	(c)	7,231
Molluscs (edible) ..	(d) 992	35	41	..	2	181	1	1,252
Pearl-shell(e) .. ..	..	..	(f) 231	..	(g) 156	..	(f) 29	416
Trochus-shell .. ..	..	..	(f) 28	..	..	..	..	28

(a) Victorian figures include catch by Victorian fishermen in Tasmanian waters (shark, £93,000, crayfish, £130,000, in 1961–62). (b) Includes shark livers for oil extraction; excludes freshwater fish caught in Queensland, particulars of which are not available. (c) Less than £500. (d) Excludes pipis, particulars of which are not available for publication. (e) Excludes pearl-shell taken by Japanese pearlers in Australian waters. Queensland figure includes pearl-shell taken by Queensland luggers operating in Northern Territory waters. (f) Season ended January. (g) Season ended December.

The table below gives this information for Australia for the years 1957–58 to 1961–62.

## FISHERIES PRODUCTION: GROSS VALUE, AUSTRALIA

(£'000)

Product	1957–58	1958–59	1959–60	1960–61	1961–62
Fish(a) .. ..	5,228	5,294	5,851	5,907	6,075
Crustaceans .. ..	3,772	4,584	5,561	5,906	7,231
Molluscs (edible)(b) ..	825	1,037	1,089	1,186	1,252
Pearl-shell(c)(d) .. ..	995	561	558	724	416
Trochus-shell(d) .. ..	184	106	78	27	28

(a) Includes shark livers for oil extraction; excludes freshwater fish caught in Queensland in 1960–61 and 1961–62. (b) Excludes pipis in New South Wales for all years, scallops in Western Australia and oysters in the Northern Territory for years prior to 1960–61, and oysters in Western Australia for 1957–58 and 1958–59. (c) Excludes pearl-shell taken by Japanese pearlers in Australian waters. (d) Season ended December (Western Australia) or January (Queensland and Northern Territory) of years shown.

(ii) *Gross and Local Values, 1961–62.* Gross and local values of fishing and whaling production for each State are shown in the following table. A more detailed reference to the value of production of fishing and whaling and other industries in Australia, as well as a brief explanation of the terms used, is included in Chapter XXIX. Miscellaneous.



**FISHING AND WHALING: GROSS AND LOCAL VALUE OF PRODUCTION,  
1961-62  
(£'000)**

State or Territory	Gross value(a)	Marketing costs	Local value(b)
New South Wales .. ..	3,871	583	3,288
Victoria .. ..	2,016	275	1,741
Queensland .. ..	1,834	201	1,633
South Australia .. ..	1,590	211	1,379
Western Australia .. ..	5,320	53	5,267
Tasmania .. ..	1,147	238	909
Northern Territory .. ..	53	n.a.	53
<b>Australia .. ..</b>	<b>15,831</b>	<b>1,561</b>	<b>14,270</b>

(a) Gross production valued at principal markets.  
production.

(b) Gross production valued at place of  
production.

(iii) *Local Values, 1957-58 to 1961-62.* In the following table, the local value of fisheries production and the local value per head of population are shown by States. Because the value of materials used in the course of production is not available for all States, it is not possible to show a comparison of net values.

**FISHING AND WHALING: LOCAL VALUE OF PRODUCTION**

Year	N.S.W.	Vic.	Qld	S. Aust.	W. Aust.	Tas.	Aust.(a)
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**LOCAL VALUE**

(£'000)

1957-58 .. ..	2,792	1,104	1,542	1,074	3,226	508	10,402
1958-59 .. ..	2,947	1,265	1,343	1,071	3,867	664	11,243
1959-60 .. ..	3,101	1,771	1,448	975	4,276	683	12,325
1960-61 .. ..	3,299	1,787	1,372	1,237	4,220	813	12,813
1961-62 .. ..	3,288	1,741	1,633	1,379	5,267	909	14,270

**LOCAL VALUE PER HEAD OF POPULATION**

(£)

1957-58 .. ..	0.8	0.4	1.1	1.2	4.7	1.6	1.1
1958-59 .. ..	0.8	0.5	0.9	1.2	5.5	2.0	1.2
1959-60 .. ..	0.8	0.6	1.0	1.0	6.0	2.0	1.2
1960-61 .. ..	0.9	0.6	0.9	1.3	5.8	2.3	1.2
1961-62 .. ..	0.9	0.6	1.1	1.4	7.1	2.6	1.4

(a) Includes Northern Territory.

#### § 4. Consumption of Fish

Particulars of the estimated supplies of fish, crustaceans and molluscs available for consumption per head of population, in terms of edible weight, are included in the table below. For the purpose of compiling this table, the non-commercial fish catch has been estimated at ten per cent. of the recorded catch.

#### FISHERIES PRODUCTS: ESTIMATED SUPPLIES AVAILABLE FOR CONSUMPTION, AUSTRALIA

(lb. edible weight per head per annum)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Fresh or frozen—					
Fish—					
Australian origin .. ..	3.1	3.1	3.2	3.1	3.2
Imported .. ..	2.1	2.2	3.2	3.0	2.7
Crustaceans and molluscs ..	0.8	0.9	1.0	1.2	1.0
Cured (including smoked and salted)	1.3	0.8	1.1	1.1	1.0
Canned—					
Australian origin .. ..	0.7	0.8	0.8	0.7	0.8
Imported .. ..	1.8	1.7	2.0	2.6	2.0
<b>Total .. ..</b>	<b>9.8</b>	<b>9.5</b>	<b>11.3</b>	<b>11.7</b>	<b>10.7</b>

#### § 5. Oversea Trade in Products of Fishing and Whaling

NOTE.—Values shown are expressed as £A. f.o.b. port of shipment. The tables of exports relate to Australian produce only, but quantities and values quoted in the text sometimes include re-exports, the amounts involved, however, generally being small.

1. **Edible Products.**—A large proportion of the fish consumed in Australia is imported. Of the edible products imported in 1961-62, those originating in Japan were valued at £2.5 million (29 per cent. of the total value); United Kingdom, £1.7 million (20 per cent.); and South Africa, £1.3 million (15 per cent.).

South Africa supplied 10.5 million lb. (33 per cent., valued at £0.8 million) of the fresh or frozen fish products imported in 1961-62, and the United Kingdom 6.9 million lb. (21 per cent., valued at £0.9 million). Of the smoked or dried fish products imported in 1961-62, South Africa supplied 6.4 million lb. (76 per cent., valued at £0.5 million). Japan supplied 10.4 million lb. (47 per cent., valued at £2.4 million) of the canned fish products imported in 1961-62.

The value of exports of edible products in 1961-62 was 48 per cent. greater than that in 1960-61. The value of crayfish tails exported in 1961-62 was 93 per cent. of the value of all exports of edible products. Of all crayfish tails exported in 1961-62, 99 per cent. (9,765,000 lb., valued at £5,956,000) were consigned to the United States of America.

The table below gives further details of Australia's oversea trade in edible products in the years 1959-60, 1960-61 and 1961-62.

## OVERSEA TRADE IN EDIBLE FISHERIES PRODUCTS: AUSTRALIA

Particulars	Quantity ('000 lb.)			Value (£A.'000 f.o.b.)		
	1959-60	1960-61	1961-62	1959-60	1960-61	1961-62

## IMPORTS

Fresh and frozen (a) .. ..	35,480	34,594	32,290	3,335	3,423	3,561
Smoked and dried .. ..	9,206	8,695	8,359	704	692	718
Potted and concentrated (b) ..	175	361	177	54	131	58
Canned—						
Herrings .. ..	5,238	7,427	4,504	586	821	473
Salmon .. ..	8,129	10,398	9,370	1,903	2,775	2,211
Sardines and pilchards ..	6,148	7,598	5,460	1,058	1,241	884
Tuna .. ..	56	424	709	9	63	96
Other fish .. ..	310	812	1,251	70	110	147
Crustaceans and molluscs ..	533	834	736	171	298	276
Total, Canned .. ..	20,414	27,493	22,030	3,797	5,308	4,087
Products not elsewhere included	..	..	..	157	139	112
Grand Total .. ..	..	..	..	8,047	9,693	8,536

## EXPORTS

(Australian produce only; excludes re-exports)

Fresh or frozen(c)—						
Crayfish tails .. ..	7,777	6,023	9,875	3,809	3,401	6,020
Whole crayfish .. ..	(d)	1,783	513	} 293 {	649	173
Fish .. ..	(d)	(d)	1,351		} 267 {	166
Other .. ..	(d)	(d)	195			66
Canned—						
Salmon .. ..	22	21	30	4	4	6
Other fish .. ..	63	114	130	9	14	17
Crustaceans and molluscs ..	69	97	57	26	43	17
Total, Canned .. ..	154	232	217	39	61	40
Products not elsewhere included	..	..	..	22	2	3
Grand Total .. ..	..	..	..	4,163	4,380	6,468

(a) Excludes frozen smoked, which is included with "Smoked and dried". (b) Includes extracts and caviare. (c) Excludes frozen smoked, which is included in item Products not elsewhere included. (d) Not available separately.

2. Pearls.—Cultured pearls valued at £189,000 were imported into Australia in 1961–62. This was 23 per cent. greater than the value imported in 1960–61 (£153,000). In 1961–62, imports of cultured pearls valued at £179,000 (95 per cent. of the total value of cultured pearl imports) originated in Japan.

Cultured pearls exported from Australia in 1961–62 were valued at £53,000, 21 per cent. lower than the value exported in 1960–61 (£67,000). In 1961–62, cultured pearl exports consigned for Japan were valued at £52,000, 98 per cent. of the value of all cultured pearls shipped in that year.

The value of natural pearls exported from Australia in 1961–62 was £27,000, 70 per cent. lower than that in 1960–61 (£92,000).

3. Unmanufactured Shells.—Of the pearl-shell exported in 1961–62, 717,000 lb. (36 per cent.) were consigned to the Federal Republic of Germany, and 628,000 lb. (31 per cent.) to the United States of America. More than 73 per cent. (436,000 lb.) of the trochus-shell exported was consigned to Italy.

Imports of unmanufactured shells included quantities of pearl, trochus and green snail shell from New Guinea, Papua and the Pacific Islands, which were subsequently re-exported from Australia.

Further particulars of Australia's overseas trade in unmanufactured shells are shown in the table below.

## OVERSEA TRADE IN UNMANUFACTURED SHELLS: AUSTRALIA

Particulars	Quantity ('000 lb.)			Value (£A.'000 f.o.b.)		
	1959–60	1960–61	1961–62	1959–60	1960–61	1961–62

## IMPORTS

<i>Total .. ..</i>	<i>156</i>	<i>114</i>	<i>96</i>	<i>18</i>	<i>10</i>	<i>14</i>
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## EXPORTS

(Australian produce only; excludes re-exports)

Pearl-shell .. ..	2,592	3,089	1,999	628	661	384
Trochus-shell .. ..	847	455	567	103	46	44
Other .. ..	24	10	22	6	2	4
<i>Total .. ..</i>	<i>3,463</i>	<i>3,554</i>	<i>2,588</i>	<i>737</i>	<i>709</i>	<i>432</i>

4. Marine Animal Oils.—The value of whale oil exported in 1961–62 was 22 per cent. less than that in 1960–61. Further details of overseas trade in marine animal oils are shown in the table below.

## OVERSEA TRADE IN MARINE ANIMAL OILS: AUSTRALIA

Particulars	Quantity ('000 gals.)			Value (£A.'000 f.o.b.)		
	1959-60	1960-61	1961-62	1959-60	1960-61	1961-62
<b>IMPORTS</b>						
Whale oil(a)—						
From Norfolk Island ..	272	348	316	108	141	127
From other countries ..	82	138	181	29	49	82
Total, Whale Oil ..	354	486	497	137	190	209
Cod liver oil .. ..	64	115	94	35	53	45
Unrefined fish oils .. ..	123	127	100	66	70	58
Other .. ..	..	..	..	28	25	21
Grand Total .. ..	..	..	..	266	338	333

**EXPORTS**

(Australian produce only; excludes re-exports)

Whale oil(a) .. ..	3,056	2,298	1,900	893	865	671
Other .. ..	..	..	..	6	18	48
Total .. ..	..	..	..	899	883	719

(a) Includes sperm whale oil, for which production statistics are not available.

## CHAPTER XXV

### MINERAL INDUSTRY

NOTE.—Further detailed information on the subjects dealt with in this chapter is contained in the annual printed Bulletin *Primary Industries, Part II.—Non-Rural Industries and Value of Production* issued by this Bureau, and in *The Australian Mineral Industry—Annual Review* and other publications issued by the Bureau of Mineral Resources, Geology and Geophysics, which also issues, in co-operation with this Bureau, a quarterly publication *The Australian Mineral Industry*, comprising two parts—Part I.—Quarterly Review, and Part II.—Quarterly Statistics. The mimeographed statistical bulletin *Mining and Quarrying* of this Bureau contains annual statistics of the industry prepared and published as soon as possible after the data have been compiled. A monthly statistical bulletin *The Gold Mining Industry, Australia* is issued also, and other current information on mining or mine products is contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the *Monthly Bulletin of Production Statistics*.

Values of Australian oversea trade shown throughout this chapter are expressed as £A. f.o.b. port of shipment, except where otherwise indicated.

#### § 1. Introduction

1. **Occurrences of Minerals.**—The greatest part of the area of outcropping rock on the Australian continent is Precambrian in age. These basement rocks form the western and central core of the continent and are flanked by younger Palaeozoic rocks which, along the eastern edge of the continent, form a belt several hundred miles wide extending from north Queensland to Tasmania. Smaller areas of Palaeozoic rocks occur in other States. Mesozoic sediments overlie large areas of the continent and reach their greatest development in central Queensland. Cainozoic rocks occur mainly in the southern parts of Victoria and South Australia and as residual basalt cappings over an extensive area of the Palaeozoic rocks of eastern Australia.

Minerals occur widely throughout the Precambrian and Palaeozoic rocks of the continent. Palaeozoic mineralization is perhaps more varied, but the deposits now being worked are in general smaller than those found in Precambrian rocks. Most of the larger deposits of minerals now being mined in Australia are shown in the following table according to the geological era in which they were formed.

**PRINCIPAL AUSTRALIAN MINERAL DEPOSITS**

Age of geological formation in which located	Metal or mineral	State or Territory	Locality
Precambrian (more than 520 million years old)	Copper ..	Queensland ..	Mount Isa
		Northern Territory	Tennant Creek
	Gold .. ..	Western Australia	Kalgoorlie and other localities
	Iron .. ..	South Australia ..	Middleback Ranges
		Western Australia	Yampi Sound
	Lead-Silver-Zinc	New South Wales	Broken Hill
		Queensland ..	Mount Isa
Palaeozoic (between 200 and 520 million years old)	Uranium ..	Queensland ..	Mary Kathleen
		South Australia ..	Radium Hill
		Northern Territory	Rum Jungle and South Alligator River area
	Black coal ..	New South Wales	Hunter Valley, Lithgow, South Coast
		Queensland ..	Baralaba, Blair Athol, etc.
		Western Australia	Collie
	Copper-Gold ..	Queensland ..	Mount Morgan
		Tasmania ..	Mount Lyell
	Lead-Silver-Zinc	Tasmania ..	Mount Read and Rosebery
	Tin (lode) ..	Queensland ..	Herberton
	Tungsten ..	Tasmania ..	North-east of State
		Tasmania ..	King Island and north-east of State

PRINCIPAL AUSTRALIAN MINERAL DEPOSITS—*continued*

Age of geological formation in which located	Metal or mineral	State or Territory	Locality
Mesozoic (between 75 and 200 million years old)	Black Coal ..	Queensland ..	Ipswich
		South Australia ..	Leigh Creek
		Tasmania ..	St. Marys
	Mineral Sands(a)	New South Wales	North coast
		Queensland ..	South coast
Cainozoic (less than 75 million years old)	Brown Coal ..	Victoria ..	Gippsland
	Tin (alluvial) ..	New South Wales	Tingha
		Queensland ..	Herberton
		Tasmania ..	North-east of State

(a) The deposition of mineral sands, derived from Palaeozoic granites, continued throughout the Cainozoic Era.

The large bauxite (aluminium) deposits of Cape York Peninsula in Queensland, from which production has now commenced, were formed during the early part of the Cainozoic Era.

Of the non-metallic minerals, many, such as clay, sand and silica, etc., are not restricted to the rocks of any particular era. However, Precambrian rocks do contain important deposits of asbestos in Western Australia, limestone and dolomite in South Australia, and mica in the Northern Territory. All crude salt is produced by the evaporation of water from pans constructed along the sea coast or from inland lakes.

2. **Mineral Concentrates.**—Concentration is a physical process involving the removal of mineral impurity from the ore. Most mines now dispatch ore in concentrate form, as this considerably reduces the transport costs and produces a salable product in the form required by smelters. Most concentrates are nearly pure mineral, and the ore-dressing processes (with the exception of that for uranium) involve no chemical change to the mineral being won. Various methods are used in concentration. Sulphide ores, which now comprise the greatest tonnages treated, are, in most instances, separated from the gangue by flotation. In this method of concentration, the ore is ground finely enough to liberate the individual mineral particles, aerated, and agitated in tanks of water to which chemicals have been added. Under certain conditions, particles of one sulphide mineral adhere to the froth bubbles and are collected in the froth overflow, while gangue and even other sulphides are depressed. By treating the tailings of one flotation process with different chemicals and conditions, it is often possible to separate a further concentrate, as is done at Broken Hill where the zinc sulphide is recovered from the tailings of the lead sulphide concentration process.

Other methods of concentration used are gravity (alluvial tin, mineral sands, some lead-zinc ores), electromagnetic (wolfram, scheelite, glauconite and mineral sands), and electrostatic (mineral sands).

Particulars of an average Broken Hill ore mined during 1961, showing metal contents before and after differential flotation, are shown in the following table. It should be stressed that in both the ore and the concentrate, lead and zinc are contained in the form of lead sulphide and zinc sulphide respectively. Most of the silver is contained in minerals which are collected with the lead sulphide.

**ORE TREATED AND CONCENTRATES PRODUCED BY DIFFERENTIAL  
FLOTATION AT BROKEN HILL, (a) 1961**

Particulars	Quantity	Proportion of weight of ore mined	Average assays			Proportion of metal distribution		
			Lead	Silver	Zinc	Lead	Silver	Zinc
	tons	per cent.	per cent.	f. oz.	per cent.	per cent.	per cent.	per cent.
Ore treated ..	1,894,679	100.0	10.9	3.9	12.1	100.0	100.0	100.0
Flotation products—								
Lead concentrate	264,209	13.9	75.4	25.5	4.1	96.4	92.3	4.7
Zinc concentrate	398,314	21.0	0.8	0.7	52.8	1.6	3.9	91.6
Residues(b) ..	1,232,156	65.1	0.3	0.2	0.7	2.0	3.8	3.7

(a) Average particulars for the four operating companies. (b) These are of no economic use at present and are either pumped as filling for underground workings or otherwise discarded.

3. **Government Aid to Mining, and Mineral Control.**—(i) *Aid to Mining—Commonwealth.*  
 (a) *Income Taxation Concessions.* One-fifth of the net income derived from mining for prescribed minerals in Australia or the Territory of Papua and New Guinea is exempt from tax. The metals or minerals to which this concession applies are as follows:—asbestos, bauxite, chromite, emery, fluorspar, graphite, ilmenite, kyanite, magnesite, manganese oxides, mica, monazite, pyrite, quartz crystals (piezo-electric quality), radio-active ores, rutile, sillimanite, vermiculite and zircon; and ores of antimony, arsenic, beryllium, bismuth, cobalt, columbium, copper, lithium, mercury, molybdenum, nickel, osmiridium, platinum, selenium, strontium, tantalum, tellurium, tin, tungsten and vanadium.

Income derived from mining principally for gold in Australia or the Territory of Papua and New Guinea is exempt from tax. The exemption is also available in respect of income derived from mining principally for gold and copper if the value of the gold obtained is not less than 40 per cent. of the value of total output.

Income attributable to uranium obtained from working a mining property in Australia or the Territory of Papua and New Guinea, or from the treatment of ore in Australia or the Territory to recover uranium concentrates, is exempt from tax for residents of Australia and the Territory of Papua and New Guinea. The exemption is, however, conditional upon the uranium recovered being owned by the Commonwealth or disposed of to a person approved by the Commonwealth.

Dividends paid wholly and exclusively out of exempt mining income are also exempt from tax.

Further information is given in a booklet entitled *Income Tax for the Mining Industry*, issued by the Commissioner of Taxation.

(b) *Assistance to the Gold-Mining Industry.* The assistance to the gold-mining industry by subsidy was introduced at a time of rising costs in the industry and a fixed official world price for gold. Because many producers were faced with the likelihood of closing down, the Government decided to subsidize marginal producers in Australia and the Territory of Papua and New Guinea. Under the *Gold-Mining Industry Assistance Act 1954*, a producer the value of whose gold output exceeded 50 per cent. of the total value of his mine output was eligible for assistance, subject to certain conditions, on the production of gold from 1st July, 1954. The rate of subsidy payable under the original Act was increased under amendments enacted on 22nd October, 1957, and 22nd May, 1959. Under the Act as it now stands, the subsidy payable to small producers whose annual output does not exceed 500 fine oz. is £2 8s. 0d. per fine oz., irrespective of cost of production or rate of profit. For large producers, subject to certain provisions, subsidy is paid at the rate of three quarters of the excess of the average cost of production over £13 10s. 0d. per fine oz. with a maximum amount of subsidy of £3 5s. 0d. per fine oz. A producer whose output during the year exceeds 500 fine oz. may elect to be treated as a small producer. In this case, the subsidy rate payable per fine ounce on total production is £2 8s. 0d. reduced by one penny for each fine ounce by which output exceeds 500 fine ounces. Where a producer receives an amount in excess of the official price of £15 12s. 6d. per fine oz. as a result of sales on overseas premium markets or otherwise, the subsidy payable is reduced by the amount of the excess. The subsidy is also limited, in the case of large producers, to the extent that the annual net profit of a producer shall not, with the addition of the subsidy, exceed 10 per cent. of the capital used in the production and sale of gold. The maximum expenditure on development allowable in determining costs is £5 5s. 0d. per fine oz. A further condition of the Act is that the recovery rate of the mine shall not fall below nine-tenths of that for the year previous to the commencement of the Act. Payments under the Act are to apply to production until 30th June, 1965.

Payments under the Act commenced in March, 1955, and the amounts paid to gold producers in the various States and Territories of Australia in each of the years 1958 to 1962 are shown in the table on page 1158.

The purpose of the *Gold Mines Development Assistance Act 1962* is to provide assistance to gold producers in Australia and the Territories of Papua and New Guinea not receiving subsidy under the *Gold-Mining Industry Assistance Act 1954–1962*, in order to increase the rate of their development work and so to add to their proved reserves of gold-bearing minerals. In recent years, these reserves had declined to the extent that the long-term prospects of the industry were jeopardized. The Act, which applies to 1962–63 and the next two financial years, provides that a development allowance is payable to a mine approved for the purposes of the scheme equal to the amount by which its allowable expenditure on development in a year, as defined in the Act, exceeds a defined base amount, which normally will be the average annual amount spent by the mine on development during the three years preceding 1962–63. The payment of allowance is also subject to a number of other conditions and limits provided for in the Act.



(c) *Assistance to the Copper Mining Industry.* After a Tariff Board investigation, assistance was accorded to the industry in 1958, partly by import duty and partly by bounty. The assistance to the industry was reviewed in 1960, and the present bounty assistance will continue until 31st December, 1963. Under the *Copper Bounty Act 1958-1960*, bounty is payable, subject to specified conditions, on refined copper sold for use in Australia. The rate of bounty is £35 per ton when the overseas price, as determined by the Minister for Customs and Excise, is £290 (£Stg.232) or less. When the overseas price rises above £290, the bounty falls by the same extent, so that no bounty is payable when the overseas price is £325 (£Stg.260) or more. A duty is imposed on imports of copper when the overseas price falls below £290 per ton, to the extent of £1 for each £1 that the price falls below £290. Including freight and other charges, the landed cost of imported copper is thus expected not to fall below about £305 per ton.

(d) *Search for Oil.* The Commonwealth Government has encouraged the search for oil in Australia, Papua and New Guinea, and considerable sums have been spent during recent years in geological and geophysical surveys and in drilling operations.

The Bureau of Mineral Resources, in close co-operation with the Mines Departments of the States, has continued regional geological and geophysical surveys throughout Australia. In 1957, the Commonwealth Government introduced the *Petroleum Search Subsidy Act 1957*, whereby stratigraphic drilling operations were subsidized to the extent of 50 per cent. of cost. The *Petroleum Search Subsidy Act 1959* widened the scope of operations for which subsidy was offered to include all types of geophysical surveys and off-structure drilling operations. Another amendment in 1961 further widened the scope of the 1959 Act to provide subsidy for test drilling and detailed structure drilling operations. It also provided for the calculation of drilling subsidies on a footage basis as an alternative to the total cost basis. A sum of £5 million was allocated to the oil search subsidy scheme for 1962-63. This amount was almost double the allocation of £2.7 million provided in the previous year. In spite of the increased allocation, applications for subsidy increased to such an extent that the maximum rate of subsidy was reduced from 50 per cent. of the allowable cost of approved operations to 30 per cent. in 1962-63.

To the end of 1962, actual payments of subsidy totalling more than £5 million had been made in accordance with the terms of the subsidy Acts, and it is expected that this amount will be greatly increased during the next two years because of vigorous oil search activities. Further particulars of government assistance in oil exploration will be found in Official Year Book No. 48, pages 1095-6.

(e) *Assistance to Producers of Sulphuric Acid and Iron Pyrites.* Following recommendations of the Tariff Board, the *Sulphuric Acid Bounty Act* was extended for a period of five years from 1st July, 1960. Arising from these same recommendations, the *Pyrites Bounty Act 1960* was enacted on 15th December, 1960, to be operative for a period of four and a half years from 1st January, 1961. The Acts provide for bounties to be paid, subject to specified conditions, on sulphuric acid produced from prescribed materials of Australian origin and to producers of iron pyrites.

(f) *Bureau of Mineral Resources, Geology and Geophysics.* The Bureau of Mineral Resources, Geology and Geophysics has sections dealing with geology, geophysics, mining engineering, petroleum technology and mineral economics. The geological section provides geologists to conduct all surveys required in Commonwealth Territories, and makes detailed and regional surveys in conjunction with or by arrangement with the State Mines Departments, surveys of possible oil-fields in Australia and New Guinea, surveys of mines for which financial assistance is sought, and investigations of deposits of radio-active minerals. The geophysical section conducts investigations throughout Australia and New Guinea connected with the search for metalliferous radio-active and other mineral deposits; investigations connected with exploration for coal, oil and water; regional magnetic and gravity surveys; engineering and military geophysics; and the operation of geophysical (magnetic and seismic) observatories. The Bureau works in close co-operation with the Mines Departments of the States. It has assumed full responsibility for geological and geophysical surveys in Commonwealth Territories, but suitable arrangements have been made to ensure that the local Administrations have the necessary technical advice directly available to them.

(g) *Ore-dressing and Mineragraphic Investigations.* These investigations are conducted by the Commonwealth Scientific and Industrial Research Organization as required by the industry. Ore-dressing investigations are carried out at the Ore-Dressing Laboratory, situated in the Department of Mining, University of Melbourne, and at the Ore-Dressing Laboratory, Kalgoorlie, situated at the School of Mines. The Mineragraphic Investigations Section is located in the Geology Department, University of Melbourne.

These two groups of laboratories perform complementary services—the Mineragraphic Investigations Section assesses microscopically the state of dispersion and the mineral association of ore bodies, while the Ore-Dressing Laboratories investigate the composition of ores and provide advice on suitable methods for their full-scale treatment. Much of this research is carried out on a co-operative research basis with the mining industry.

(h) *Department of Territories.* For particulars of the Northern Territory Administration, see paragraph (h) under section (ii) *Aid to Mining—States*, following.

(ii) *Aid to Mining—States.* (a) *General.* In addition to free assays and determinations of rocks and minerals carried out for prospectors by the Mines Departments of the States and Territories, technical officers of these departments provide advice to the mining and allied industries where required, carry out field examinations of mining prospects, advise on exploration and development, select sites for water supply, and in general give a free technical service to the mining industry.

(b) *New South Wales.* State aid to assist metalliferous mining may consist of grants to assist the prospecting and/or mining for gold and minerals, and for the purchase, removal and installation of mining plant or equipment. A quantity of mechanical equipment is also available in several localities for hire at reasonable rentals to prospectors and small mine operators, and District Inspectors have geiger counters and scheelite detectors which are loaned to approved persons.

(c) *Victoria.* Loans may be granted to assist prospecting and development or the purchase of machinery for gold mining. The Mines Department has stamp batteries in different parts of the State to crush ore for prospectors at nominal rates. Small mining companies may avail themselves of these facilities. Drilling with diamond, rotary and percussion drills is carried out by the Mines Department for mining companies and for general mineral exploration.

(d) *Queensland.* Various forms of assistance to mining are made available by the Queensland Department of Development and Mines. Grants are made from the Consolidated Revenue Fund for use on construction and maintenance of roads in mining areas. Advances are made from the Gold Mining Encouragement Fund for mining development work. This assistance is restricted to gold mines, and advances are repayable from proceeds of the mine, if any. From the Assistance to Metalliferous Mining Fund, plant, such as jackhammers, compressors and pumps, is purchased and maintained. Such plant is made available on hire, the rental payments being credited back to the fund. Prospecting assistance is made available in approved cases, the rates being £2 10s. a week for a single man and £3 10s. a week for a married man with dependants. This is not repayable. From the Advances to Mining Fund, assistance by way of subsidy is advanced for mine development. This is repayable from proceeds of the mine. The department also maintains a treatment works for tin ores, etc., at Irvinebank, an assay office at Cloncurry, and diamond-drilling plants in several parts of the State. The Venus State mill at Charters Towers is available for the treatment of gold-bearing ores.

(e) *South Australia.* The Department of Mines provides the following services and facilities to the mineral industry:—(i) hire of boring plant and mining equipment, boring and testing of mineral deposits, financial subsidies in approved cases for prospecting and mining development, development of sub-surface water supplies for farming, pastoral, irrigation and mining purposes, and purchase of basic metal ores from prospectors; (ii) geological examination of mineral deposits, water supply, dam foundation and drainage problems, guidance on mining legislation, and publication and issue of geological bulletins and maps. It also provides, through the Australian Mineral Development Laboratories, chemical and metallurgical and analytical and assay investigation, testing and treatment of ores and minerals, and petrographic, mineragraphic and radiometric determinations. Pilot scale metallurgical and chemical treatment plants are maintained and operated for the development of mineral extraction processes.

(f) *Western Australia.* Assistance is given to prospectors to the extent of £5 a week south of the 26th parallel of latitude, and of £6 a week north of that parallel; also provision is made for the supply of some tools required for prospecting.

There are twenty State batteries operating intermittently throughout the goldfields for the treatment of ore from prospectors and small mine-owners, at a nominal charge. A cartage subsidy is also granted to such operators sending ore to State batteries for treatment.

Provision is made for loans to mine-owners who require assistance to develop mines. The Government also has a drilling scheme, financing mine-owners on a £1 for £1 basis.

(g) *Tasmania.* The Department of Mines provides financial assistance to mining lessees for the purchase of plant and machinery, for sinking, repairing or de-watering of shafts, for construction of dams and water races, for testing and proving a deposit of any mining product, for developmental work, and for diamond and other types of drilling. The Department has available for hire percussion and diamond drills for exploration, as well as a complete plant for small shaft sinking and tunnelling. Other assistance is rendered to the industry by geological and engineering advice, through ore-dressing research into metallurgical recoveries, and the selection and design of treatment plant.

(h) *Northern Territory.* To encourage the development of the mining industry, the Northern Territory Administration has erected four government batteries for the treatment of miners' ores. Only two of these, at Tennant Creek and Mount Wells near Burrundie, are now in operation. The re-opening of the other two batteries will depend on the revival of small scale wolfram and tin mining in Hatches Creek and Maranboy where these batteries are located.

The crushing charges are subsidized by government grants. In addition, the Administration provides cartage subsidies and financial advances to encourage miners to carry out developmental work. Roads and water supply services are provided and maintained for mines under active development throughout the Territory.

(iii) *Controls on Minerals and Metals.* Export controls are maintained over certain minerals and metals. These controls are enforced by means of the Customs (Prohibited Exports) Regulations as amended from time to time by Statutory Rules. To export these materials, it is necessary to obtain a clearance from the following Commonwealth authorities:—

Department of National Development—mineral sands in all forms (including concentrates) containing zircon, rutile or ilmenite; lithium ores and concentrates; beryllium ores and concentrates; manganese ores; iron ores, beneficiated iron ores and iron concentrates;

Department of Trade—iron, steel and ferrous alloys;

Department of Primary Industry—phosphate rock, phosphate and superphosphate, and fertilizers containing phosphate or superphosphate;

Australian Atomic Energy Commission—all radio-active minerals, metals and compounds, including uranium, thorium and monazite; lithium metal and alloys; beryllium metal, alloys and compounds; zirconium metal, alloys and compounds.

Further information concerning the Atomic Energy Commission appears in Chapter XVIII. Education, Cultural Activities and Research.

## § 2. The Mineral Industry

1. *Sources of Statistics.*—In the main, the data contained in this chapter consist of official statistics of the Mines Departments of the several States and of the Northern Territory Mines Branch. The particulars shown have been compiled as far as practicable on the standardized basis which has been used in Australia since 1950, and this presentation has involved some rearrangement of official statistics published by the Mines Departments in some States. These statistics have been supplemented, as necessary, by data obtained from the Statisticians of the several States, the Commonwealth Bureau of Mineral Resources, the Joint Coal Board, the Australian Mines and Metals Association (Inc.), the Division of Minerals of the United States Bureau of Mines, and from several other sources.

2. *Presentation of Mineral Statistics.*—(i) *Mineral Industry Data.* The mineral industry includes all mining and quarrying and the recovery of minerals from ore dumps, tailings, etc. Ore-dressing and elementary smelting of metallic minerals (e.g. in the case of gold) and miscellaneous treatment of non-metallic minerals, where these are carried out in an associated plant at or near the mine, are included in the mineral industry. However, establishments primarily engaged in smelting and/or refining (including the smelting and refining sections of the large plants operated at Mount Morgan and Mount Isa in Queensland and at Mount Lyell in Tasmania) are omitted and classified to the manufacturing industry.

For mines and quarries which produce more than one product, it is not possible to apportion some particulars relating to the operations of the mine (employment, salaries and wages paid, and costs incurred in production) to the minerals produced. It is, therefore, the practice to record these data only as a total for each mine and then to classify each mine to the industry of the most important mineral produced. Thus a mine producing, say, both tin and tungsten minerals, would be classified as a tin mine if tin were the more important product by value, and as tungsten if tungsten were the dominant product.

The mineral industries are classified into four major groups, namely, Metal Mining, Fuel Mining, Non-metal (excluding Fuel) Mining, and Construction Material Quarrying.

Mineral industry data have been obtained annually, since 1952, from the Mining and Quarrying Census. This census is carried out in collaboration with the several Mines departments and involves the uniform collection of particulars from all establishments employing on the average four or more persons during the period worked by the mine. A representative specimen collection form is included in the bulletin *Primary Industries, Part II.*, No. 55, 1960-61, pages 47 and 48. For smaller mines, either simplified Census returns covering number of persons employed and value of output are collected, or these particulars are compiled from data made available by the Mines departments.

Statistics of oil search operations have been excluded in accordance with the definition of the mining industry set out above, but a special article on developments in the search for oil, contributed by the Commonwealth Bureau of Mineral Resources, may be found in Official Year Book No. 48, pages 1094-9. More recent developments are outlined in § 13 of this chapter. Details of the activities of establishments engaged in the mining and treatment of uranium ore have been excluded because of the confidential nature of these operations.

(ii) *Mineral Product Data.* In the preparation of Australian mineral production statistics, the quantities and values of individual minerals produced are recorded in terms of the products in the form in which they are dispatched from the locality of each mine. For example, in the case of a metal mine, the output is recorded as ore when no treatment is undertaken at the mine, or as a concentrate where ore-dressing operations are carried out in associated works in the locality of the mine. In addition to the basic quantity data, the contents of metallic minerals and contents or average grade of selected non-metallic minerals are recorded. Whenever practicable, contents (based on assay) of metallic minerals are shown for each metal which is a "pay metal" or a "refiners' prize" when present in the particular mineral. In general, other metallic contents which are not recovered are excluded.

Minerals are divided into four major groups, namely, Metals, Fuels, Non-metals (excluding Fuels) and Construction Materials. In this chapter, individual mineral products are arranged in these four groups. Particulars relating to uranium-bearing minerals are excluded.

3. Number of Mines and Quarries.—The following table shows the number of mines and quarries which operated in each State and Territory in 1961.

MINING AND QUARRYING: NUMBER OF MINES AND QUARRIES, 1961

Industry	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining—									
Gold mining ..	52	18	45	2	153	1	24	..	295
Lead-silver-zinc mining ..	14	..	5	1	4	2	1	..	27
Copper-gold mining ..	19	1	52	1	33	1	4	..	111
Tin mining ..	59	..	159	..	8	28	12	..	266
Mineral sands mining ..	13	..	4	..	4	..	..	..	21
Other metal mining ..	29	3	11	7	25	3	7	..	85
<i>Total, Metal Mining</i>	<i>186</i>	<i>22</i>	<i>276</i>	<i>11</i>	<i>227</i>	<i>35</i>	<i>48</i>	<i>..</i>	<i>805</i>
Fuel mining—									
Black coal mining—									
Underground ..	103	3	71	..	3	(a) 9	..	..	(a) 189
Open-cut ..	4	..	7	1	1	..	..	..	13
<i>Total ..</i>	<i>107</i>	<i>3</i>	<i>78</i>	<i>1</i>	<i>4</i>	<i>9</i>	<i>..</i>	<i>..</i>	<i>202</i>
Brown coal mining ..	..	6	..	..	..	..	..	..	6
<i>Total, Fuel Mining ..</i>	<i>107</i>	<i>9</i>	<i>78</i>	<i>1</i>	<i>4</i>	<i>9</i>	<i>..</i>	<i>..</i>	<i>208</i>
Non-metal (excluding fuel) mining(b) ..	359	57	110	128	74	23	4	..	755
<i>Total, All Mining ..</i>	<i>652</i>	<i>88</i>	<i>464</i>	<i>140</i>	<i>305</i>	<i>67</i>	<i>52</i>	<i>..</i>	<i>1,768</i>
Construction material quarrying(c) ..	346	252	74	254	35	67	24	4	1,056
<i>Total, All Mining and Quarrying ..</i>	<i>998</i>	<i>340</i>	<i>538</i>	<i>394</i>	<i>340</i>	<i>134</i>	<i>76</i>	<i>4</i>	<i>2,824</i>

(a) Includes one mine operating both underground and open-cut workings. (b) Incomplete for some industries outside the normal administrative control of State Mines Departments (e.g. clays and salt).

(c) Incomplete, owing to difficulties of coverage.

In the next table, the number of mines and quarries which operated in Australia in each of the years 1957 to 1961 are shown.

### MINING AND QUARRYING: NUMBER OF MINES AND QUARRIES, AUSTRALIA

Industry	1957	1958	1959	1960	1961
<b>Metal mining—</b>					
Gold mining .. .. .	294	285	306	296	295
Lead-silver-zinc mining .. .. .	82	50	35	28	27
Copper-gold mining .. .. .	100	81	81	90	111
Tin mining .. .. .	178	180	216	216	266
Mineral sands mining .. .. .	32	28	22	22	21
Other metal mining .. .. .	154	84	96	94	85
<i>Total, Metal Mining</i> .. .. .	<i>840</i>	<i>708</i>	<i>756</i>	<i>746</i>	<i>805</i>
<b>Fuel mining—</b>					
Black coal mining .. .. .	241	227	218	218	202
Brown coal mining .. .. .	7	7	8	7	6
<i>Total, Fuel Mining</i> .. .. .	<i>248</i>	<i>234</i>	<i>226</i>	<i>225</i>	<i>208</i>
Non-metal (excluding fuel) mining(a) .. .. .	641	645	687	698	755
<i>Total, All Mining</i> .. .. .	<i>1,729</i>	<i>1,587</i>	<i>1,669</i>	<i>1,669</i>	<i>1,768</i>
Construction material quarrying(a) .. .. .	780	746	862	892	(b)1,056
<i>Total, All Mining and Quarrying</i> .. .. .	<i>2,509</i>	<i>2,333</i>	<i>2,531</i>	<i>2,561</i>	<i>(b)2,824</i>

(a) Incomplete.  
in Victoria.

(b) Not strictly comparable with previous years, owing to extension of coverage

4. **Employment in Mining and Quarrying.**—(i) *Persons Engaged.* Statistics of persons employed in the mining and quarrying industry are derived mainly from the annual census of that industry.

Data on the work force employed in the industry are also obtained from the Population Censuses of Australia. The Population Census figure for mining and quarrying includes a number of persons excluded by definition from the mining and quarrying census employment figure, e.g. prospectors, head office employees, etc.

In the following table, which shows particulars collected in the Population Censuses of Australia at 30th June, 1947, 1954, and 1961, the numbers of persons whose industry was stated to be "mining and quarrying" are shown together with the numbers engaged in all primary industries and the total work force.

### PERSONS ENGAGED IN MINING AND QUARRYING, AUSTRALIA

Particulars	Census, 30th June—		
	1947	1954	1961
<b>Persons engaged in—</b>			
Mining and quarrying .. .. .	57,574	62,107	52,941
All primary industries .. .. .	563,697	560,100	472,670
<b>Total work force</b> .. .. .	<b>3,196,431</b>	<b>3,702,022</b>	<b>4,225,098</b>
<b>Persons engaged in mining and quarrying as a proportion of—</b>			
All primary industries .. .. . %	10.2	11.1	11.2
<b>Total work force</b> .. .. . %	<b>1.8</b>	<b>1.7</b>	<b>1.3</b>

The following table is derived from mining census data and shows the average numbers engaged in the various mining industries in each State or Territory in 1961.

## MINING AND QUARRYING: EMPLOYMENT(a), 1961

Industry	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining—									
Gold mining ..	20	205	(b)	(b)	4,909	(b)	140	..	5,438
Lead-silver-zinc mining ..	5,164	..	(b)	(b)	21	(b)	1	..	8,158
Copper-gold mining ..	72	2	(b)	(b)	219	(b)	226	..	2,322
Tin mining ..	104	..	(b)	..	49	(b)	5	..	1,131
Mineral sands mining ..	669	..	(b)	..	(b)	..	..	..	1,141
Other metal mining ..	33	10	(b)	(b)	396	(b)	5	..	1,097
<i>Total, Metal Mining</i>	6,062	217	4,233	(b)	(b)	2,247	377	..	19,287
Fuel mining—									
Black coal mining—									
Underground ..	12,360	340	2,806	..	(b)	} c 257	{ ..	..	(b)
Opencut ..	152	..	184	(b)	(b)		{ ..	..	(b)
<i>Total ..</i>	12,512	340	2,990	(b)	(b)	257	..	..	16,957
Brown coal mining ..	..	1,441	..	..	..	..	..	..	1,441
<i>Total, Fuel Mining..</i>	12,512	1,781	2,990	(b)	(b)	257	..	..	18,398
Non-metal (excluding fuel) mining(d) ..	1,167	261	285	590	535	100	4	..	2,942
<i>Total, All Mining ..</i>	19,741	2,259	7,508	1,250	6,884	2,604	381	..	40,627
Construction material quarrying(e) ..	1,755	2,022	425	777	233	222	(f) 64	(g)	5,498
<i>Total, All Mining and Quarrying ..</i>	21,496	4,281	7,953	2,027	7,117	2,826	(f) 445	(g)	46,125

(a) Average employment during whole year, including working proprietors. (b) Not available for publication. (c) Includes persons engaged by one mine which has both underground and opencut workings. (d) Incomplete for some industries outside the normal administrative control of State Mines Departments (e.g. clays and salt). (e) Incomplete, owing to difficulties of coverage. (f) Includes Australian Capital Territory. (g) Not available for publication; included with Northern Territory.

The following table shows particulars of mining employment in Australia for the years 1957 to 1961. The figures show the average number of persons employed during the whole year, including working proprietors.

## MINING AND QUARRYING: EMPLOYMENT, AUSTRALIA

Industry	1957	1958	1959	1960	1961
Metal mining—					
Gold mining ..	6,205	5,901	5,948	5,544	5,438
Lead-silver-zinc mining ..	10,354	9,461	9,031	8,731	8,158
Copper-gold mining ..	2,151	2,057	2,301	2,364	2,322
Tin mining ..	856	944	926	946	1,131
Mineral sands mining ..	2,062	1,102	1,019	1,127	1,141
Other metal mining ..	1,300	1,030	1,031	1,177	1,097
<i>Total, Metal Mining</i>	22,928	20,495	20,256	19,889	19,287
Fuel mining—					
Black coal mining ..	22,345	20,795	18,678	18,529	16,957
Brown coal mining ..	1,579	1,540	1,519	1,399	1,441
<i>Total, Fuel Mining</i>	23,924	22,335	20,197	19,928	18,398
Non-metal (excluding fuel) mining (a) ..	2,749	2,728	2,975	2,925	2,942
<i>Total, All Mining</i>	49,601	45,558	43,428	42,742	40,627
Construction material quarrying (a) ..	4,640	4,581	4,116	5,016	5,498
<i>Total, All Mining and Quarrying ..</i>	54,241	50,139	47,544	47,758	46,125

(a) Incomplete.

(ii) *Size Classification of Mines and Quarries.* Most of the mines and quarries worked during 1961 employed less than four persons, including working proprietors. However, more than half of the persons engaged in mining and quarrying were in the 48 mines each employing 200 persons or more. The following table shows the distribution of the total number of mines into various size groups according to the average number of persons employed during the period worked by each mine in 1961. For particulars of the method of compiling these industry statistics, see para. 2 (i), pages 1144-5.

#### MINING AND QUARRYING: SIZE CLASSIFICATION OF ESTABLISHMENTS, 1961

Mines and quarries employing on the average(a)—	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T. and A.C.T.	Aust.
Less than 4 persons—								
Establishments ..	704	150	376	285	233	78	69	1,895
Persons ..	1,092	255	678	502	617	154	113	3,411
From 4 to 20 persons—								
Establishments ..	175	152	84	95	78	41	7	632
Persons ..	1,421	1,241	859	721	622	305	50	5,219
From 21 to 200 persons—								
Establishments ..	93	35	74	12	20	12	3	249
Persons ..	7,103	1,293	3,356	578	1,619	742	158	14,849
More than 200 persons—								
Establishments ..	26	3	4	2	9	3	1	48
Persons ..	12,182	1,907	4,041	566	4,539	1,744	221	25,200
Total—								
Establishments ..	998	340	538	394	340	134	80	2,824
Persons ..	21,798	4,696	8,934	2,367	7,397	2,945	542	48,679

(a) Average during period worked. Includes working proprietors.

(iii) *Accidents in Mining.* Particulars of numbers of persons killed and injured in accidents in mines and associated treatment plants are recorded by State Mines Departments. Numbers injured are not reported on a uniform basis in all States, as varying criteria are used in determining what constitutes injury. In 1961, 28 persons were recorded as killed and 1,394 as injured in mining (excluding quarrying) accidents. Recorded deaths and injuries in that year were highest in black coal mines (11 and 368, respectively), lead-silver-zinc mines (4 and 359), gold mines (5 and 322), and copper-gold mines (4 and 142). Persons killed and injured in the construction material quarrying industry numbered 10 and 74, respectively, in 1961.

5. *Production Costs in Mining and Quarrying.*—(i) *Salaries and Wages Paid.* Salaries and wages paid in the mining and quarrying industries in Australia during each year 1957 to 1961 are shown in the following table. Information regarding rates of wages paid in the mining industry is shown in Chapter XII. Labour, Wages and Prices (p.469) and also in the *Labour Report*.

**MINING AND QUARRYING: SALARIES AND WAGES PAID(a), AUSTRALIA**  
(£'000)

Industry	1957	1958	1959	1960	1961
<b>Metal mining—</b>					
Gold mining .. ..	6,422	6,492	6,504	6,555	6,591
Lead-silver-zinc mining .. ..	16,241	13,462	13,944	13,555	13,261
Copper-gold mining .. ..	2,289	2,362	2,710	2,938	2,915
Tin mining .. ..	753	737	814	905	927
Mineral sands mining .. ..	2,177	1,327	1,188	1,336	1,474
Other metal mining .. ..	1,402	1,108	1,058	1,338	1,263
<i>Total, Metal Mining</i> .. ..	<i>29,284</i>	<i>25,488</i>	<i>26,218</i>	<i>26,727</i>	<i>26,431</i>
<b>Fuel mining—</b>					
Black coal mining .. ..	25,105	24,501	23,437	25,918	25,460
Brown coal mining .. ..	1,640	1,694	1,710	1,785	1,923
<i>Total, Fuel Mining</i> .. ..	<i>26,745</i>	<i>26,195</i>	<i>25,147</i>	<i>27,703</i>	<i>27,383</i>
Non-metal (excluding fuel) mining(b) .. ..	2,400	2,384	2,631	2,664	2,875
<i>Total, All Mining</i> .. ..	<i>58,429</i>	<i>54,067</i>	<i>53,996</i>	<i>57,094</i>	<i>56,689</i>
Construction material quarrying(b) .. ..	3,219	3,241	3,490	3,628	4,018
<b>Total, All Mining and Quarrying</b> .. ..	<b>61,648</b>	<b>57,308</b>	<b>57,486</b>	<b>60,722</b>	<b>60,707</b>

(a) Excludes mines and quarries employing less than four persons, and drawings by working proprietors; the amounts are net after deducting value of explosives sold to employees. (b) Incomplete.

(ii) *Power, Fuel, Light and Materials, etc., used.* The following table contains details of the value of power, fuel, materials and stores used by the mining and quarrying industry during each year 1957 to 1961.

**MINING AND QUARRYING: VALUE OF POWER, FUEL, LIGHT AND MATERIALS, ETC., USED, AUSTRALIA**  
(£'000)

Industry	1957	1958	1959	1960	1961
<b>Metal mining—</b>					
Gold mining .. ..	5,076	4,970	5,069	4,909	4,979
Lead-silver-zinc mining .. ..	10,419	10,025	10,367	12,106	10,303
Copper-gold mining .. ..	2,549	2,969	3,325	3,288	3,503
Tin mining .. ..	428	521	512	530	601
Mineral sands mining .. ..	1,977	1,281	1,348	1,562	1,797
Other metal mining .. ..	1,399	1,004	924	1,109	1,258
<i>Total, Metal Mining</i> .. ..	<i>21,848</i>	<i>20,770</i>	<i>21,545</i>	<i>23,504</i>	<i>22,441</i>
<b>Fuel mining—</b>					
Black coal mining .. ..	10,233	10,536	10,166	11,319	12,409
Brown coal mining .. ..	635	612	593	623	622
<i>Total, Fuel Mining</i> .. ..	<i>10,868</i>	<i>11,148</i>	<i>10,759</i>	<i>11,942</i>	<i>13,031</i>
Non-metal (excluding fuel) mining(a) .. ..	2,146	2,389	2,359	2,340	2,508
<i>Total, All Mining</i> .. ..	<i>34,862</i>	<i>34,307</i>	<i>34,663</i>	<i>37,786</i>	<i>37,980</i>
Construction material quarrying(a) .. ..	3,447	3,312	4,167	4,427	(b) 5,346
<b>Total, All Mining and Quarrying</b> .. ..	<b>38,309</b>	<b>37,619</b>	<b>38,830</b>	<b>42,213</b>	<b>(b) 43,326</b>

(a) Incomplete.  
in Victoria.

(b) Not strictly comparable with previous years owing to extension of coverage



6. Value of Additions and Replacements to Fixed Assets in Mining and Quarrying.—The following table shows details for Australia of the value of additions and replacements to fixed assets during the years 1957 to 1961.

**MINING AND QUARRYING: VALUE OF ADDITIONS AND REPLACEMENTS TO FIXED ASSETS(a), AUSTRALIA**  
(£'000)

Industry	1957	1958	1959	1960	1961
<b>Metal mining—</b>					
Gold mining .. .. .	1,385	1,334	1,446	789	778
Lead-silver-zinc mining .. .. .	5,641	3,692	6,566	3,548	3,425
Copper-gold mining .. .. .	926	540	651	451	845
Tin mining .. .. .	117	75	66	185	261
Mineral sands mining .. .. .	2,155	894	787	481	728
Other metal mining .. .. .	510	624	713	1,369	1,138
<i>Total, Metal Mining</i> .. .. .	<i>10,734</i>	<i>7,159</i>	<i>10,229</i>	<i>6,823</i>	<i>7,175</i>
<b>Fuel mining—</b>					
Black coal mining .. .. .	9,229	7,912	7,707	10,947	11,535
Brown coal mining .. .. .	2,706	2,309	3,654	1,914	2,723
<i>Total, Fuel Mining</i> .. .. .	<i>11,935</i>	<i>10,221</i>	<i>11,361</i>	<i>12,861</i>	<i>14,258</i>
Non-metal (excluding fuel) mining(b) .. .. .	1,575	1,283	1,454	588	1,274
<i>Total, All Mining</i> .. .. .	<i>24,244</i>	<i>18,663</i>	<i>23,044</i>	<i>20,272</i>	<i>22,707</i>
Construction material quarrying(b) .. .. .	874	825	1,408	1,624	2,281
<b>Total, All Mining and Quarrying</b> .. .. .	<b>25,118</b>	<b>19,488</b>	<b>24,452</b>	<b>21,896</b>	<b>24,988</b>

(a) Excludes mines and quarries employing less than four persons.

(b) Incomplete.

7. Mineral Production.—(i) *Quantity of Principal Minerals Produced.* In the following table, particulars of the quantity of the principal minerals produced during 1961 are shown for each State and the Northern Territory.

**QUANTITY OF PRINCIPAL MINERALS PRODUCED, 1961**

Mineral	Unit	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	Aust.
<b>METALLIC MINERALS</b>									
Antimony ore and concentrate .. .. .	ton	188	2	..	..	..	..	..	190
Bauxite .. .. .	..	2,437	(a)	(a)	..	..	..	..	15,976
Beryllium ore .. .. .	..	36	..	..	9	261	..	..	306
Copper ore(b) .. .. .	..	222	52	59,901	8	7,384	7,619	29	75,215
Copper concentrate .. .. .	..	4,642	..	272,854	..	6,291	48,976	41,007	373,770
Copper precipitate .. .. .	..	84	..	9	..	..	16	716	825
Gold concentrate .. .. .	..	1	..	..	..	..	..	..	1
Gold—other forms(c) .. .. .	oz.	—586	(d)	(d)	(d)	(d)	(d)	(d)	(d)
Ilmenite concentrate .. .. .	ton	2,012	..	4	..	164,384	..	..	166,400
Iron ore(e) .. .. .	'000 tons	..	..	..	3,982	1,360	..	..	5,342
Lead ore(f) .. .. .	ton	245	..	7,482	..	..	..	16	7,743
Lead concentrate .. .. .	..	277,910	..	91,440	..	597	12,345	..	382,292
Lead-copper concentrate .. .. .	..	..	..	..	..	8,057	..	..	8,057
Manganese ore .. .. .	..	883	..	2,465	295	83,660	..	108	87,411
Pyrite concentrate .. .. .	..	31,138	..	9,375	69,493	52,397	51,020	..	213,423
Rutile concentrate .. .. .	..	66,607	..	33,908	..	916	..	..	101,431
Tantalite-columbite concentrate .. .. .	..	..	..	..	..	..	..	..	..
Tin concentrate .. .. .	lb.	..	..	..	..	31,808	..	..	31,808
Tin concentrate .. .. .	ton	238	..	1,887	..	341	1,390	14	3,870
<b>Tungsten concentrates—</b>									
Scheelite concentrate .. .. .	..	(g)	..	..	..	..	1,017	..	1,017
Wolfram concentrate .. .. .	..	(g)	..	2	..	..	1,117	23	1,142
Zinc concentrate .. .. .	..	425,442	..	49,021	..	..	68,177	..	542,640
Zircon concentrate .. .. .	..	100,085	..	29,016	..	7,361	..	..	136,462

NOTE.—See next page for footnotes.

QUANTITY OF PRINCIPAL MINERALS PRODUCED, 1961—*continued*

Mineral	Unit	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	Aust.
<b>FUEL MINERALS</b>									
Coal, black—									
Semi-anthracite ..	'000 tons	..	..	57	..	..	2	..	59
Bituminous ..	"	19,021	66	2,650	..	..	254	..	21,991
Sub-bituminous ..	"	..	..	75	1,115	766	..	..	1,956
<i>Total</i> ..	"	19,021	66	2,782	1,115	766	256	..	24,006
Coal, brown (lignite) ..	"	..	16,279	..	..	..	..	..	16,279

## NON-METALLIC (EXCLUDING FUEL) MINERALS

Asbestos ..	short ton	794	..	..	..	15,952	..	..	16,746
Barite ..	ton	60	..	..	19,157	..	..	..	19,217
Clays—									
Brick clay and shale ..	'000 tons	2,006	(h) 1,089	300	311	485	153	..	4,344
Other(i) ..	"	567	176	14	87	46	22	..	912
Diatomite ..	ton	4,331	507	579	..	..	..	..	5,417
Dolomite(j) ..	"	4,796	..	2,132	183,214	374	1,108	..	191,624
Felspar ..	"	5,378	..	..	1,641	1,190	..	..	8,209
Gypsum ..	"	97,250	80,223	..	387,289	45,145	..	..	609,907
Limestone(j) ..	'000 tons	2,576	1,243	(a)	1,105	(a)	204	(g)	6,146
Magnesite ..	ton	88,511	..	..	659	9,625	..	..	98,795
Phosphate rock ..	"	..	..	..	4,759	115	..	..	4,874
Salt, crude ..	"	..	(a)	(a)	387,433	(a)	..	807	508,657
Silica (glass, chemical, etc.)(i) ..	"	150,891	..	29,226	22,769	8,274	1,415	..	212,575
Talc ..	"	825	..	..	7,571	5,149	..	..	13,545

## CONSTRUCTION MATERIALS(k)

Sand ..	'000 tons	2,937	2,528	(l)	1,863	(l)	34	(m) 65	7,427
River gravel and gravel boulders ..	"	1,450	3,040	(l)	911	(l)	612	(m) 5	6,018
Dimension stone ..	"	354	7	2	40	130	(g)	(g)	533
Crushed and broken stone ..	"	3,794	11,297	1,870	8,609	949	571	(m) 213	27,303
Other (decomposed rock, etc.) ..	"	14,798	1,659	(l)	(l)	(l)	25	(l)	16,482

(a) Not available for publication. (b) Includes cupreous ore for fertilizer. (c) Bullion, alluvial, retorted gold, etc. (d) Gross weight not available. (e) Iron oxide for metal extraction. (f) Includes lead-silver ore. (g) Less than half the unit of quantity shown. (h) Estimated. (i) Incomplete; figures relate only to production reported by Mines Departments. (j) Excludes quantities used directly as a building or road material. (k) Incomplete owing to difficulties of coverage. (l) Not available. (m) Includes Australian Capital Territory which is not available for separate publication.

NOTE.—Particulars of uranium concentrate produced are not available for publication and are excluded.

(ii) *Quantities of Principal Minerals Produced, Australia.* The following table shows the quantities of the principal minerals produced in Australia during the years 1957 to 1961.

## QUANTITIES OF PRINCIPAL MINERALS PRODUCED: AUSTRALIA

Mineral	Unit	1957	1958	1959	1960	1961
METALLIC MINERALS						
Antimony ore and concentrate ..	ton	852	1,116	1,022	256	190
Bauxite .. .. .	"	7,707	6,909	14,985	69,435	15,976
Beryllium ore .. .. .	"	395	247	317	190	306
Chromite .. .. .	"	3,049	776	120	529	..
Copper ore(a) .. .. .	"	56,447	58,109	77,738	68,321	75,215
Copper concentrate .. .. .	"	222,168	279,976	358,774	432,758	373,770
Copper precipitate .. .. .	"	557	1,536	1,379	1,301	825
Gold concentrate .. .. .	"	(b) 959	1,855	1,487	43	1
Gold—other forms(c) .. .. .	oz.	(d)	(d)	(d)	(d)	(d)
Ilmenite concentrate .. .. .	ton	71,155	69,948	83,577	106,586	166,400
Iron ore(e) .. .. .	'000 tons	3,801	3,917	4,141	4,355	5,342
Lead ore(f) .. .. .	ton	20,758	21,854	12,693	13,716	7,743
Lead concentrate .. .. .	"	497,404	492,908	461,055	449,590	382,292
Lead-copper concentrate .. .. .	"	7,366	7,630	6,010	6,797	8,057
Manganese ore .. .. .	"	77,010	59,683	89,971	60,646	87,411
Pyrite concentrate .. .. .	"	229,125	226,744	223,004	238,630	213,423
Rutile concentrate .. .. .	"	128,903	83,328	81,905	88,637	101,431
Tantalite-columbite concentrate .. .. .	lb.	50,038	13,507	18,950	23,677	31,808
Tin concentrate .. .. .	ton	2,867	3,128	3,304	3,099	3,870
Tungsten concentrates—						
Scheelite concentrate .. .. .	"	1,449	733	1	420	1,017
Wolfram concentrate .. .. .	"	656	517	903	1,131	1,142
Zinc concentrate .. .. .	"	556,763	503,752	473,276	549,000	542,640
Zircon concentrate .. .. .	"	88,561	59,269	113,356	102,362	136,462

## FUEL MINERALS

Coal, black—						
Semi-anthracite .. .. .	'000 tons	71	57	54	50	59
Bituminous .. .. .	"	18,229	18,616	18,576	20,641	21,991
Sub-bituminous .. .. .	"	1,619	1,769	1,668	1,878	1,956
<i>Total</i> .. .. .	"	19,919	20,442	20,298	22,569	24,006
Coal, brown (lignite) .. .. .	"	10,741	11,644	13,035	14,967	16,279

## NON-METALLIC (EXCLUDING FUEL) MINERALS

Asbestos .. .. .	short ton	14,670	15,568	17,875	15,613	16,746
Barite .. .. .	ton	9,778	6,802	6,214	11,417	19,217
Clays—						
Brick clay and shale .. .. .	'000 tons	3,531	3,829	4,299	4,636	4,344
Other(g) .. .. .	"	748	775	823	880	912
Diatomite .. .. .	ton	6,221	4,240	5,089	4,659	5,417
Dolomite(h) .. .. .	"	192,103	138,832	160,084	190,868	191,624
Felspar .. .. .	"	8,819	7,016	6,750	8,414	8,209
Gypsum .. .. .	"	478,436	504,938	516,791	580,878	609,907
Limestone(h) .. .. .	'000 tons	4,572	5,324	5,305	5,669	6,146
Magnesite .. .. .	ton	83,473	69,391	60,586	62,166	98,795
Mica—muscovite, trimmed .. .. .	lb.	36,713	42,479	44,665	9,500	..
Phosphate rock .. .. .	ton	11,430	7,421	4,775	2,321	4,874
Salt, crude .. .. .	"	427,600	429,534	467,532	463,296	508,657
Silica (glass, chemical, etc.)(g) .. .. .	"	149,339	145,483	154,778	210,100	212,575
Talc .. .. .	"	14,441	15,393	16,376	15,670	13,545

NOTE.—See next page for footnotes.

## QUANTITIES OF PRINCIPAL MINERALS PRODUCED: AUSTRALIA—continued

Mineral	Unit	1957	1958	1959	1960	1961
CONSTRUCTION MATERIALS(i)						
Sand .. .. .	'000 tons	4,125	4,118	4,623	5,934	7,427
River gravel and gravel boulders .. .. .	"	1,759	2,265	2,524	2,932	6,018
Dimension stone .. .. .	"	230	272	283	318	533
Crushed and broken stone .. .. .	"	15,587	15,543	19,822	22,843	27,303
Other (decomposed rock, etc.) .. .. .	"	12,546	12,722	13,699	15,264	16,482

(a) Includes cupreous ore for fertilizer. (b) Includes a small quantity of gold ore.  
 (c) Bullion, alluvial, retorted gold, etc. (d) Gross weight not available. (e) Iron oxide for metal extraction.  
 (f) Includes lead-silver, lead-silver-zinc and lead-zinc ores. (g) Incomplete; figures relate only to production reported by Mines Departments. (h) Excludes quantities used directly as a building or road material. (i) Incomplete owing to difficulties of coverage; 1961 figures are not strictly comparable with previous years owing to extension of coverage in Victoria.

NOTE.—Particulars of uranium concentrate produced are not available for publication and have been excluded.

(iii) *Contents of Metallic Minerals Produced.* The following table shows the contents of metallic minerals produced in 1961 which were "pay metals" or which were recovered as "refiners' prizes". Further particulars for earlier years are shown in the following paragraph and in the sections later in this chapter covering principal contents.

## CONTENTS OF METALLIC MINERALS PRODUCED, 1961

Content of metallic minerals produced	Unit	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	Aust.
Alumina (Al <sub>2</sub> O <sub>3</sub> ) .. .. .	ton	929	(a)	(a)	..	..	..	..	(b) 7,464
Antimony .. .. .	"	679	1	..	..	..	..	..	680
Beryllium oxide (BeO) .. .. .	unit(c)	490	..	..	(d) 120	2,975	..	..	3,585
Bismuth .. .. .	lb.	..	..	..	..	602	..	..	602
Cadmium .. .. .	ton	845	..	..	..	..	62	..	907
Cobalt .. .. .	"	65	..	..	..	..	(e)	..	65
Copper .. .. .	"	3,510	8	66,505	..	2,206	12,743	10,652	95,626
Gold .. .. .	fine oz.	12,034	26,229	64,786	55	870,658	26,885	75,645	1,076,292
Iron(f) .. .. .	'000 tons	..	..	(d) 2,581	853	..	..	..	(b) 3,434
Lead .. .. .	ton	211,679	..	45,280	433	12,253	..	11	269,656
Manganese(g) .. .. .	"	..	..	(d) 1,109	..	39,880	..	..	40,989
Manganese di-oxide (MnO <sub>2</sub> )h .. .. .	"	632	..	..	(d) 192	204	..	76	1,104
Molybdenum di-sulphide(MoS <sub>2</sub> ) .. .. .	lb.	2,070	..	(d) 560	..	..	..	..	2,630
Monazite .. .. .	ton	144	..	127	..	(d) 1,192	..	..	(b) 1,463
Platinum .. .. .	oz.	2	..	..	..	..	..	..	2
Silver .. .. .	'000	..	..	..	..	..	..	..	..
Sulphur(i) .. .. .	fine oz.	7,448	1	3,883	..	209	1,436	82	13,059
Tantalite-columbite (Ta <sub>2</sub> O <sub>5</sub> + Nb <sub>2</sub> O <sub>5</sub> ) .. .. .	ton	194,659	..	(b)20,515	(d)33,357	24,046	52,289	..	324,866
Tin .. .. .	lb.	..	..	..	..	13,814	..	..	13,814
Titanium dioxide (TiO <sub>2</sub> ) .. .. .	ton	173	..	(d) 1,350	..	231	986	5	2,745
Tungstic oxide (WO <sub>3</sub> ) .. .. .	"	65,189	..	33,058	..	93,718	..	..	191,965
Zinc .. .. .	"	(e)	..	1	..	..	1,519	16	1,536
Zircon .. .. .	"	237,834	..	33,219	(d) 12	..	40,106	(e)	311,171
	"	98,421	..	28,775	..	(d) 7,287	..	..	134,483

(a) Not available for publication. (b) Partly estimated. (c) 1 unit = 22.4 lb.  
 (d) Estimated. (e) Less than half the unit of quantity shown. (f) Excludes iron content of iron oxide not intended for metal extraction. (g) Content of metallurgical grade manganese ore.  
 (h) Content of manganese ore of other than metallurgical grade. (i) Sulphur content of pyrite and other minerals from which sulphur was extracted.

NOTE.—Particulars of production of uranium oxide (U<sub>3</sub>O<sub>8</sub>) are not available for publication and are excluded.

(iv) *Contents of Metallic Minerals Produced in Australia.* Particulars of the contents of metallic minerals produced in Australia in the years 1957 to 1961 are shown in the following table. Graphs showing details of the mine production of principal metals and coal from 1935 to 1962 may be found on pages 1159-60.

### CONTENTS OF METALLIC MINERALS PRODUCED: AUSTRALIA

Content of metallic minerals produced	Unit	1957	1958	1959	1960	1961
Alumina ( $\text{Al}_2\text{O}_3$ ) ..	ton	3,758	3,533	6,914	(a) 31,393	(a) 7,464
Antimony ..	"	1,209	1,356	1,280	786	680
Beryllium oxide (BeO) ..	unit(b)	4,570	2,900	3,587	2,221	3,585
Bismuth ..	lb.	1,344	2,328	..	..	602
Cadmium ..	ton	979	872	860	949	907
Chromic oxide ( $\text{Cr}_2\text{O}_3$ ) ..	"	(a) 1,420	(a) 386	(c) 60	(c) 265	..
Cobalt ..	"	68	71	60	65	65
Copper ..	"	59,255	75,715	94,950	109,435	95,626
Gold ..	fine oz.	1,083,941	1,103,980	1,085,104	1,086,709	1,076,292
Iron(d) ..	'000 tons	2,463	2,539	2,700	2,814	3,434
Lead ..	ton	333,753	328,347	316,293	308,163	269,656
Manganese(e) ..	"	34,904	25,623	40,966	28,585	40,989
Manganese dioxide ( $\text{MnO}_2$ )(f) ..	"	1,239	2,819	2,475	1,617	1,104
Molybdenum disulphide ( $\text{MoS}_2$ ) ..	lb.	(c) 5,236	(c) 8,568	..	..	2,630
Monazite ..	ton	132	423	331	(a) 344	(a) 1,463
Osmiridium ..	oz.	69	43	3	..	..
Platinum ..	"	17	22	..	4	2
Silver ..	'000 fine oz.	15,811	16,340	15,161	15,216	13,059
Sulphur(g) ..	ton	342,474	322,619	310,545	340,000	324,866
Tantalite-columbite ( $\text{Ta}_2\text{O}_5 + \text{Nb}_2\text{O}_5$ ) ..	lb.	23,499	6,736	8,499	11,500	13,814
Tin ..	ton	1,952	2,237	2,351	2,202	2,745
Titanium dioxide ( $\text{TiO}_2$ ) ..	"	163,751	119,233	125,301	144,744	191,965
Tungstic oxide ( $\text{WO}_3$ ) ..	"	1,409	850	653	1,111	1,536
Zinc ..	"	318,962	293,763	275,547	317,408	311,171
Zircon ..	"	87,703	58,745	112,352	101,494	134,483

(a) Partly estimated. (b) 1 unit = 22.4 lb. (c) Estimated. (d) Excludes iron content of iron oxide not intended for metal extraction. Partly estimated. (e) Content of metallurgical grade manganese ore. (f) Content of manganese ore of other than metallurgical grade. (g) Sulphur content of pyrite and other minerals from which sulphur is extracted.

NOTE.—Particulars of production of uranium oxide ( $\text{U}_3\text{O}_8$ ) are not available for publication and are excluded.

### § 3. Gold

1. *Historical.*—A brief history of gold-mining in Australia may be found in previous issues of the Year Book (see No. 48, p. 1059).

2. *Methods of Mining and Treatment.*—Gold ores can be divided into two types, namely, free-milling and refractory. Free-milling ores are those that, when finely ground, will yield their gold content to amalgamation and/or cyanidation, and these are found in most of the gold deposits of Australia.

Some refractory ores, which are not amenable to amalgamation, allow their gold to be dissolved by cyanidation, from which solution the gold is then precipitated. However, on the Coolgardie field, where gold-bearing sulphide and telluride minerals occur, it is necessary first to recover these from gangue by flotation. This concentrate is then roasted, and the resulting calcine, an impure oxide containing free gold, is cyanided to yield gold. This is usually smelted as bullion, in which form it leaves the vicinity of the mine.

3. *Mine Production.*—The following table shows the mine production of gold (gold content of minerals produced) during 1961 according to the mineral in which it was contained and the State or Territory of origin. A small quantity of gold recovered from pyrite concentrate produced at Kalgoorlie, Western Australia, for sulphuric acid manufacture is included with gold ore, concentrate, etc.

### GOLD: MINE PRODUCTION, 1961

(Fine oz.)

Mineral in which contained	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	Aust.
Copper ore, concentrate, etc. ..	2,556	..	49,690	..	2,983	7,242	18,354	80,825
Gold ore, concentrate, etc. ..	753	26,229	15,096	55	867,675	446	57,291	967,545
Lead concentrate ..	7,088	..	..	..	..	3,889	..	10,977
Lead-copper concentrate ..	..	..	..	..	..	12,572	..	12,572
Zinc concentrate ..	1,637	..	..	..	..	2,736	..	4,373
<b>Total Gold ..</b>	<b>12,034</b>	<b>26,229</b>	<b>64,786</b>	<b>55</b>	<b>870,658</b>	<b>26,885</b>	<b>75,645</b>	<b>1,076,292</b>

The principal sources of production during 1961 were as follows.

(i) *New South Wales.* There was only one mine employing four or more persons engaged solely in gold-mining. Most of the gold produced during 1961 was contained in lead and zinc concentrates produced at Broken Hill and copper, lead, and zinc concentrates milled at Captain's Flat.

(ii) *Victoria.* At Chewton, near Castlemaine, one mine produced more than half of the State's production. Only one other gold mine, located in the north-east of the State, produced more than 1,000 fine oz. during the year.

(iii) *Queensland.* The copper concentrate produced at Mount Morgan contained more than three-quarters of the State's output of gold, nearly all the remaining production coming from a mine at Cracow.

(iv) *South Australia.* The only gold produced was won by prospectors.

(v) *Western Australia.* More than half the total production came from the East Coolgardie goldfield, while most of the remaining production came from the Dundas, Murchison and Yilgarn goldfields. A single mine at Fimiston maintained its position as the largest gold producer in Australia, mining 166,031 fine oz. during 1961, and two other mines each produced over 100,000 fine oz. in the same period.

(vi) *Tasmania.* Lead-copper, lead and zinc concentrates milled at Rosebery contained more than two-thirds of the gold produced in Tasmania during 1961, nearly all the remaining production being contained in copper concentrate produced at Mount Lyell.

(vii) *Northern Territory.* Gold production is centred around Tennant Creek.

The following table shows the recorded mine production of gold (i.e. gold content of minerals produced) in the several States and in Australia as a whole during each year 1958 to 1962 and total output since the first major discovery of gold in 1851. Owing to defective information in the earlier years, it is likely that the total production figures fall considerably short of the actual totals.

## GOLD: MINE PRODUCTION(a)

State or Territory	1958	1959	1960	1961	1962(b)	Total(b) 1851-1962
	f. oz.	f. oz.	f. oz.	f. oz.	f. oz.	'000 f. oz.
New South Wales .. ..	18,709	13,275	13,628	12,034	11,712	16,447
Victoria .. ..	41,476	34,662	28,566	26,229	28,134	73,732
Queensland .. ..	74,568	91,687	78,267	64,786	67,841	22,821
South Australia .. ..	48	16	36	55	48	451
Western Australia .. ..	874,819	860,969	869,966	870,658	860,040	63,357
Tasmania .. ..	21,744	21,353	23,994	26,885	32,075	2,459
Northern Territory .. ..	72,616	63,142	72,252	75,645	73,297	1,532
<b>Australia .. ..</b>	<b>1,103,980</b>	<b>1,085,104</b>	<b>1,086,709</b>	<b>1,076,292</b>	<b>1,073,147</b>	<b>180,799</b>

(a) Gold content of minerals produced.

(b) Subject to revision.

4. **Refinery Production.**—Amalgam and gold slimes from cyanide extraction are treated at the mines to produce gold bullion, which at some mines may be partly refined before dispatch to the Royal Mints, located in Melbourne and Perth. By-product gold from lead smelting is refined at Port Pirie in South Australia, while the gold contained in copper refinery sludges resulting from electrolytic copper refining at Mount Lyell and Port Kembla, is recovered at Port Kembla. Gold bullion and other gold-bearing materials are also refined in Sydney.

Details of the refinery production of gold in Australia and the value of refined newly-won gold of Australian origin are shown in the following table for each of the years 1958 to 1962. The value of the refined newly-won gold is based on the price fixed by the Reserve Bank, but allowance is made for premiums on sales of gold overseas and for industrial purposes in Australia.

## PRODUCTION OF REFINED GOLD IN AUSTRALIA

Particulars	1958	1959	1960	1961	1962
QUANTITY (FINE OZ.)					
Australian origin—					
Newly-won gold .. ..	1,069,774	1,067,129	1,045,139	1,036,947	1,024,623
From scrap .. ..	17,350	20,617	22,699	22,593	21,806
Oversea origin—					
Newly-won gold .. ..	136,998	141,624	142,526	155,598	138,455
From scrap .. ..	888	1,075	1,164	1,277	188
<b>Total .. ..</b>	<b>1,225,010</b>	<b>1,230,445</b>	<b>1,211,528</b>	<b>1,216,415</b>	<b>1,185,072</b>

## VALUE (£'000)

<b>Newly-won gold of Australian origin .. ..</b>	<b>16,720</b>	<b>16,677</b>	<b>16,396</b>	<b>16,241</b>	<b>16,021</b>
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5. **Changes in Stocks of Gold held in Australia.**—The following table shows particulars of production and consumption, imports and exports of gold and changes in stocks of gold held in Australia for each of the years 1958 to 1962.

**CHANGES IN STOCKS OF GOLD HELD IN AUSTRALIA**  
(Fine oz.)

Particulars	1958	1959	1960	1961	1962 (a)
Mine production of gold(b) ..	1,103,980	1,085,104	1,086,709	1,076,292	1,073,147
Imports of gold(c)(d) ..	160,232	136,674	144,033	146,279	135,087
<i>Total</i> .. ..	<i>1,264,212</i>	<i>1,221,778</i>	<i>1,230,742</i>	<i>1,222,571</i>	<i>1,208,234</i>
Exports of gold(c) .. ..	128,550	128,052	2,513,906	1,099,701	314,971
Gold content of ores and concentrates exported ..	22,453	17,941	25,803	39,835	44,166
Net industrial consumption of gold .. ..	29,135	33,938	40,972	35,429	47,881
<i>Total</i> .. ..	<i>180,138</i>	<i>179,931</i>	<i>2,580,681</i>	<i>1,174,965</i>	<i>407,018</i>
Changes in stocks of gold held in Australia(e) .. ..	+1,084,074	+1,041,847	-1,349,939	+ 47,606	+ 801,216

(a) Subject to revision. (b) Gold content of minerals produced in Australia. (c) Includes gold contained in matte. Excludes specie, leaf and foil and gold in unrefined forms other than the gold content of unrefined gold and silver bullion. (d) Excludes gold imported in some minor minerals. (e) Includes changes in holdings in Australia by Official and Banking Institutions both on their own behalf and that of non-residents, together with the gold content of change in stocks of minerals awaiting refining. The sign near the figure indicates increase (+) or decrease (-) in stocks during the period shown.

6. **Prices of Gold.**—Under existing legislation, all gold produced in Australia is sold to the Reserve Bank. The official price of gold is fixed by the Reserve Bank. On 1st May, 1954, it was raised from £15 9s. 10d. to £15 12s. 6d. per fine oz. and has remained unchanged since that date. The current price reflects the "parity" value of Australian currency established by the *International Monetary Agreement Act 1947*. Prior to 1947, the price of gold was based on the price for which it could be sold abroad in official markets, less cost of movement.

Average prices of gold per fine oz. at mints in Australia and on the London gold market are shown in the following table for the years 1958 to 1962.

**PRICES OF GOLD: AUSTRALIA AND LONDON**  
(per fine oz.)

Place of sale	1958	1959	1960	1961	1962
At mints in Australia £A. s. d.	15 12 6	15 12 6	15 12 6	15 12 6	15 12 6
London .. .. £stg. s. d.	12 9 9½	12 9 10½	12 11 2½	12 11 0	12 10 1

7. **Sales of Gold on Oversea Premium Markets.**—In November, 1951, the Commonwealth Government decided to allow Australian gold producers to benefit from the higher prices then being paid for gold on some overseas markets. To implement this decision, producers formed the Gold Producers' Association Limited in December, 1951, and the first sales were made in that month. By arrangement with the Reserve Bank of Australia, the total quantity of newly-won gold delivered to the Bank by members of the Association in any calendar month, less the quantity required for industrial purposes in Australia, is available to the Association for sale on overseas premium markets during the ensuing two calendar months. The net proceeds from premium sales are distributed to members in proportion to their production of gold. The actual volume of sales on overseas premium markets has been dependent largely on the premium over the Australian fixed price.



The following table shows the quantity and value of gold sold on overseas premium markets and the average price realized for these sales during the years 1958 to 1962.

### GOLD SOLD ON OVERSEA PREMIUM MARKETS

Particulars	Unit	1958	1959	1960	1961	1962
Quantity ..	fine oz.	189,537	37,346	320,151	733,217	320,323
Value ..	£A. f.o.b.	2,964,637	584,129	5,049,183	11,513,571	5,016,625
Average price ..	£A. s. d.	15 12 10	15 12 10	15 15 5	15 14 1	15 13 3

8. *Gold Subsidy*.—Details of amounts paid under the provisions of the *Gold Mining Industry Assistance Act* 1954–1962 for the years 1958 to 1962 are shown in the following table. Particulars of this Act and other legislation are given in para. 3 (i) (b) on page 1141.

### NET SUBSIDY PAYMENTS TO GOLD PRODUCERS

(£)

Year	New South Wales	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Papua and New Guinea	Total
1958 ..	26,951	38,380	3,958	..	623,394	..	16,360	44,485	753,528
1959 ..	107	41,500	2,937	55	652,266	..	39,181	52,449	788,495
1960 ..	14	45,881	881	35	698,242	..	4,253	65,292	814,598
1961 ..	145	63,036	1,325	..	585,306	..	4,930	44,758	699,500
1962 ..	61	50,579	2,134	97	621,573	18	1,235	72,812	748,509

9. *Production in Principal Countries*.—The quantities of gold produced in the principal producing countries and the estimated world total production in each of the years 1957 to 1961 are shown in the following table.

### GOLD: PRODUCTION IN PRINCIPAL COUNTRIES

(Source: Division of Minerals, United States Bureau of Mines)

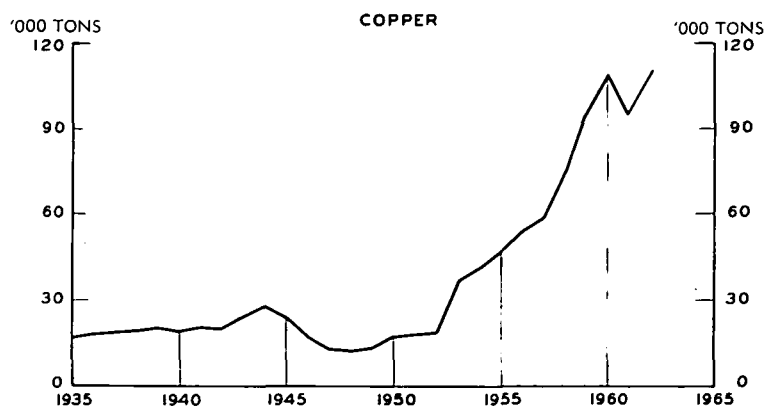
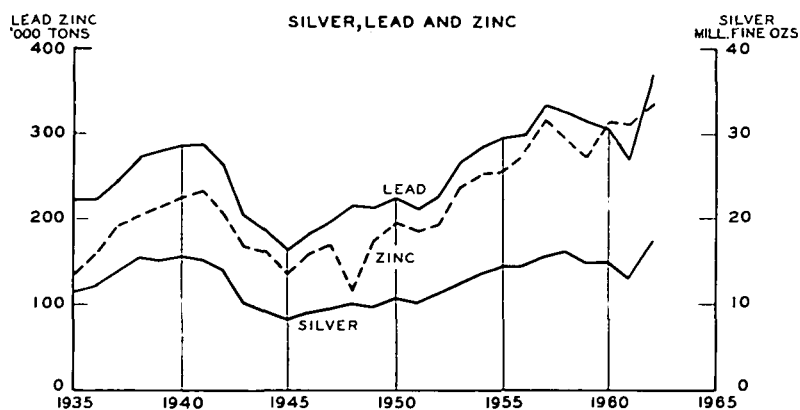
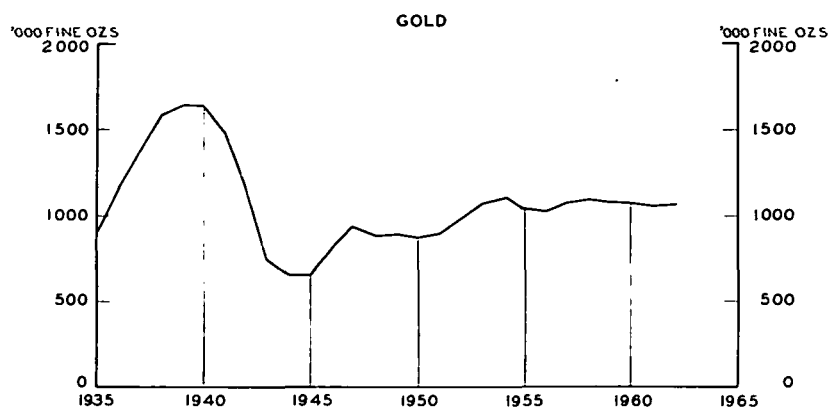
('000 fine oz.)

Country	1957	1958	1959	1960	1961
South Africa ..	17,031	17,656	20,066	21,383	22,942
U.S.S.R.(a) ..	10,000	10,000	10,000	11,000	12,000
Canada ..	4,434	4,571	4,483	4,629	4,442
United States of America ..	1,800	1,759	1,635	1,680	1,567
Australia ..	1,084	1,104	1,085	1,087	1,076
Ghana ..	790	853	913	893	970
Rhodesia and Nyasaland ..	540	559	572	568	574
Philippines ..	380	423	403	411	424
Colombia ..	325	372	398	434	400
Japan ..	253	261	262	261	294
<i>Estimated World Total</i> ..	39,500	40,600	42,800	45,400	47,700

(a) Estimated.

# MINE PRODUCTION OF PRINCIPAL METALS (METALLIC CONTENT OF MINERALS)

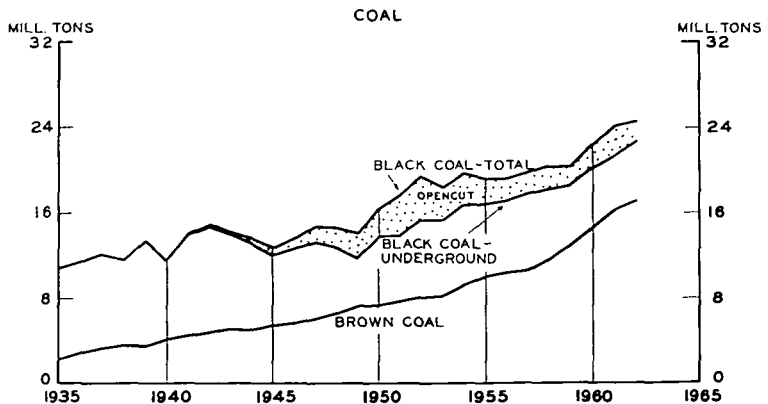
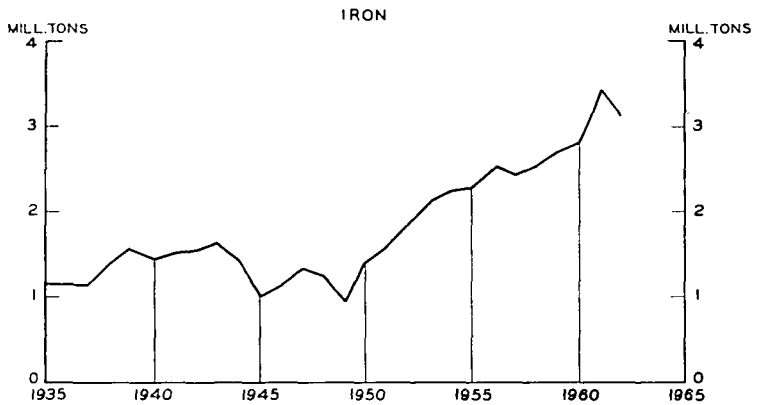
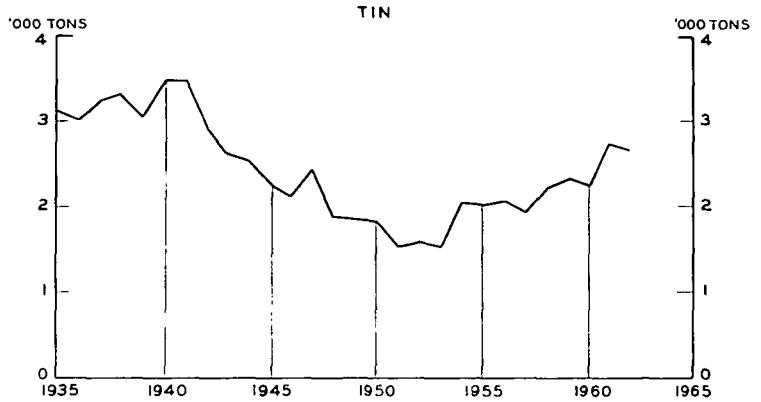
AUSTRALIA, 1935 TO 1962



# MINE PRODUCTION OF PRINCIPAL METALS AND PRODUCTION OF COAL

(METALLIC CONTENT OF MINERALS)

AUSTRALIA, 1935 TO 1962



## § 4. Lead, Silver and Zinc

1. **Historical.**—A brief history of silver-lead-zinc mining in Australia may be found in previous issues of the Year Book (see No. 48, p. 1065).

2. **Lead-Zinc Study Group.**—With the cessation of stock-pile buying of lead and zinc by the United States Government in 1958, world producers were faced with the prospect of a serious unbalance between world supply and demand for these metals. To meet this problem, a series of meetings of interested governments was held, at which Australia was represented. The meeting culminated in the formation of the Lead-Zinc Study Group in mid-1959. This group has met on several occasions and embarked on basic studies of productive capacity of lead and zinc, prices, and consumption trends. Since the group was established, it has recommended reduced production and sales (mainly lead) from time to time which have meant curtailments in both mine and metal production in Australia. No reduction was planned for 1963.

3. **Methods of Mining and Treatment.**—Nearly all ores now mined are composed of deep-lying sulphide minerals and it is therefore necessary to mine these ores by underground methods. At all large mines, it is the practice to produce separate lead and zinc concentrates with the lead concentrate containing most of the silver. These concentrates are prepared by differential flotation except in cases where a satisfactory concentrate can be obtained by gravity methods. In flotation plants, the ore is finely ground and by differential flotation a lead concentrate is first produced, with the zinc concentrate subsequently separated from the tailings.

Particulars of representative Broken Hill lead and zinc concentrates are shown in para. 2, page 1140.

4. **Mine Production.**—The following table shows the mine production (metal content of ores and concentrates produced) of lead, silver and zinc in Australia, and the respective minerals in which these metals were contained.

LEAD, SILVER AND ZINC: CONTENT OF ORES AND CONCENTRATES  
PRODUCED, 1961

Mineral in which contained	N.S.W.	Vic.	Q'land	S.A.	W. Aust.	Tas.	N.T.	Aust.
LEAD (tons)								
Lead ore(a) ..	42	..	686	..	..	..	11	739
Lead concentrate ..	207,716	..	43,631	..	433	7,230	..	259,010
Lead-copper concentrate ..	..	..	..	..	..	2,733	..	2,733
Zinc concentrate ..	3,921	..	963	..	..	2,290	..	7,174
<i>Total Lead</i> ..	<i>211,679</i>	<i>..</i>	<i>45,280</i>	<i>..</i>	<i>433</i>	<i>12,253</i>	<i>11</i>	<i>269,656</i>

SILVER (fine oz.)								
Copper ore ..	582	..	11	..	..	9,151	..	9,744
Copper concentrate ..	82,179	..	442,070	..	8,785	43,304	82,124	658,462
Gold concentrate, etc. ..	141	573	17,133	..	200,573	..	9	218,429
Lead ore(a) ..	4,465	..	26,585	..	..	..	49	31,099
Lead concentrate ..	7,050,980	..	3,255,043	..	289	357,156	..	10,663,468
Lead-copper concentrate ..	..	..	..	..	..	799,031	..	799,031
Zinc concentrate ..	309,610	..	141,942	..	..	227,381	..	678,933
<i>Total Silver</i> ..	<i>7,447,957</i>	<i>573</i>	<i>3,882,784</i>	<i>..</i>	<i>209,647</i>	<i>1,436,023</i>	<i>82,182</i>	<i>13,059,166</i>

ZINC (tons)								
Lead ore(a) ..	..	..	..	..	..	(b)	(b)	
Lead concentrate ..	12,256	..	7,590	..	..	3,116	..	22,962
Zinc ore ..	..	..	..	(c) 12	..	..	(c)	12
Zinc concentrate ..	225,578	..	25,629	..	..	36,990	..	288,197
<i>Total Zinc</i> ..	<i>237,834</i>	<i>..</i>	<i>33,219</i>	<i>(c) 12</i>	<i>..</i>	<i>40,106</i>	<i>(b)</i>	<i>311,171</i>

(a) Includes lead-silver and lead-silver-zinc ore.

(b) Less than half a ton.

(c) Estimated.

The principal sources of production of lead, silver and zinc during 1961, were as follows.

(i) *New South Wales.* Lead and zinc concentrates, produced only at Broken Hill and Captain's Flat, contained nearly all the New South Wales production of lead and silver and all the zinc. During 1961, New South Wales mines produced (in terms of the content of all ores and concentrates produced) more than three-quarters of Australia's lead and zinc and more than half of the silver.

(ii) *Victoria.* All the silver produced was obtained from gold mining operations. No zinc-bearing minerals are mined in Victoria and lead was last mined in 1957.

(iii) *Queensland.* Mount Isa produced all the lead and zinc concentrates in Queensland during 1961. These contained most of the State's production of lead and silver and all the zinc. Nearly all the remaining silver was contained in copper concentrate produced at Mount Morgan.

(iv) *South Australia.* A small quantity of zinc ore for fertilizer was mined during 1961; there was no mine production of lead or silver during the year.

(v) *Western Australia.* Most of the silver produced was obtained from gold bullion produced by the gold-mining industry. All the lead produced was contained in lead concentrate. No zinc was produced during 1961.

(vi) *Tasmania.* All the lead, silver and zinc was produced from mines on the West Coast. All the zinc and most of the lead and silver were produced from mines at Rosebery and Williamsford and milled at Rosebery to produce separate lead, zinc, and lead-copper concentrates.

(vii) *Northern Territory.* Almost all the silver was contained in copper concentrates produced from Tennant Creek and Rum Jungle. In addition, a small quantity of lead ore containing silver, lead and zinc was produced.

The table hereunder shows the quantities of lead, silver and zinc contained in minerals won in the several States and the Northern Territory during the years 1957 to 1961.

#### LEAD, SILVER AND ZINC: CONTENT OF ORES AND CONCENTRATES PRODUCED

State or Territory	1957	1958	1959	1960	1961
LEAD (tons)					
New South Wales .. ..	266,928	246,896	246,449	235,868	211,679
Victoria .. ..	4	..	..	..	..
Queensland .. ..	51,269	65,799	54,415	57,518	45,280
South Australia .. ..	20	13	8	..	..
Western Australia .. ..	3,087	1,854	1,382	1,739	433
Tasmania .. ..	12,445	13,785	14,039	13,038	12,253
Northern Territory .. ..	..	..	..	..	11
<i>Australia .. ..</i>	<i>333,753</i>	<i>328,347</i>	<i>316,293</i>	<i>308,163</i>	<i>269,656</i>
SILVER (fine oz.)					
New South Wales .. ..	9,969,102	8,992,293	8,555,203	8,397,889	7,447,957
Victoria .. ..	3,157	3,018	2,016	576	573
Queensland .. ..	4,305,886	5,710,031	4,953,209	5,121,700	3,882,784
South Australia .. ..	975	613	394	..	..
Western Australia .. ..	187,530	189,375	179,601	196,756	209,647
Tasmania .. ..	1,299,062	1,394,818	1,369,070	1,398,424	1,436,023
Northern Territory .. ..	45,417	49,664	101,138	100,611	82,182
<i>Australia .. ..</i>	<i>15,811,129</i>	<i>16,339,812</i>	<i>15,160,631</i>	<i>15,215,956</i>	<i>13,059,166</i>

LEAD, SILVER AND ZINC: CONTENT OF ORES AND CONCENTRATES  
PRODUCED—*continued*

State or Territory	1957	1958	1959	1960	1961
ZINC (tons)					
New South Wales .. ..	256,276	227,440	216,993	248,164	237,834
Queensland .. ..	29,507	29,538	23,468	34,775	33,219
South Australia(a) .. ..	97	113	..	35	12
Western Australia .. ..	..	20	..	..	..
Tasmania .. ..	33,082	36,652	35,086	34,434	40,106
Northern Territory .. ..	..	..	..	..	(b)
<i>Australia</i> .. ..	<i>318,962</i>	<i>293,763</i>	<i>275,547</i>	<i>317,408</i>	<i>311,171</i>

(a) Estimated.

(b) Less than half a ton.

5. *Smelter and Refinery Production.*—(i) *Lead Concentrate.* The bulk of lead concentrate produced at Broken Hill is railed to Port Pirie, in South Australia, for smelting and refining. Lead-silver bullion is produced from initial smelting, and lead, silver and gold are then refined. Cadmium is obtained from smelter fumes and refined to produce rods of metal. The sulphur dioxide gas formed during pre-smelter sintering operations is used to manufacture sulphuric acid. The antimony contained in the concentrate is alloyed with lead to form marketable antimonial lead while the copper is recovered in various products which are sent to copper refineries for copper extraction. Because of the continued low price of lead, production of refined metal at Port Pirie was below capacity in 1961.

In 1961, a new smelter was commissioned at Cockle Creek, New South Wales. It draws its supplies of lead and zinc concentrates from Broken Hill. This plant is unique in Australia in that the zinc content of lead concentrate is recovered. Previously this zinc content had accumulated in lead smelter slags. The bullion produced at this plant is exported for treatment while the refined zinc is used domestically. Sulphuric acid and cadmium are recovered as by-products. Some of the Broken Hill concentrate not treated at Port Pirie and Cockle Creek is exported.

Lead ore and concentrate produced at Mount Isa is smelted at the mine to derive a lead bullion which is rich in silver. All this bullion is exported to the United Kingdom for refining. A lead-copper dross is produced as a by-product of lead smelting and this is also exported.

Lead and lead-copper concentrates produced in Tasmania and lead concentrates produced in Western Australia are exported.

(ii) *Zinc Concentrate.* A large proportion of the zinc concentrate produced at Broken Hill is exported, and the remainder is either shipped from Port Pirie to Risdon, near Hobart, or railed to Cockle Creek for smelting and refining. At Risdon, the Broken Hill concentrate, together with all zinc concentrate produced in Tasmania, is roasted to form zinc oxide or calcine. Sulphur dioxide formed during this roasting process is used for the manufacture of sulphuric acid. The calcine is leached with a weak solution of sulphuric acid to form a zinc sulphate solution which, after purification, is electrolysed. Zinc of high purity is deposited on the cathodes and this zinc is melted and cast into ingots. Cadmium metal and cobalt oxide are also recovered. Lead-silver residues are recovered and forwarded to Port Pirie for smelting with lead concentrates. Copper residues are sent to Port Kembla for treatment.

Zinc concentrate produced at Mount Isa is refined overseas.

In the following table, details are given of the production and sales of refined primary lead, silver and zinc as recorded from data received from the Bureau of Mineral Resources and the Australian Mines and Metals Association. The figures shown for refined silver production include small quantities recovered from imported materials.

## REFINED LEAD, SILVER AND ZINC: PRODUCTION AND SALES, AUSTRALIA

Particulars	1957	1958	1959	1960	1961
<b>LEAD (tons)</b>					
Refined lead— Production(a) .. .. .	192,161	191,474	185,805	189,823	162,264
Sold to Australian consumers(b) ..	37,291	39,928	33,563	32,985	26,289
Sold for export(b) .. .. .	152,432	158,075	133,340	132,957	142,166
Silver-lead bullion— Produced for export (lead content)(a) ..	46,891	57,171	50,310	52,723	48,090

<b>SILVER ('000 fine oz.)</b>					
Production(a) .. .. .	8,011	9,101	7,805	8,085	7,099
Sold to Australian consumers(b) ..	4,410	4,184	4,775	5,284	6,362
Sold for export(b) .. .. .	3,397	5,074	2,722	2,740	912

<b>ZINC (tons)</b>					
Production(a) .. .. .	110,348	114,773	116,461	120,230	138,694
Sold to Australian consumers(b) ..	78,874	72,844	78,753	90,240	85,499
Sold for export(b) .. .. .	37,316	37,989	40,950	29,335	42,675

(a) Source: Bureau of Mineral Resources.

(b) Source: Australian Mines and Metals Association.

6. Prices of Lead, Silver and Zinc.—The following table shows average prices of lead, silver and zinc in Australia and on the London Metal Exchange during the years 1958 to 1962.

## PRICES OF LEAD, SILVER AND ZINC

Particulars	1958	1959	1960	1961	1962
<b>Australian prices, in Australian currency—</b>					
Lead, per ton(a) .. £	87	100	100	99	82
Silver, per fine oz.(b) s. d.	7 11½	8 2½	8 3½	8 4½	9 6½
Zinc, per ton(c) .. £	51	105	113	102	103
<b>London Metal Exchange prices, in sterling—</b>					
Lead, per ton .. £	73	72	72	65	57
Silver, per fine oz. s. d.	6 4½	6 7	6 7½	6 7½	7 7½
Zinc, per ton .. £	65	80	88	78	68

(a) The minimum price was fixed at £100 per ton on 23rd December, 1958. This was reduced to £95 per ton on 14th November, 1961, £85 per ton on 30th January, 1962, and £75 per ton on 10th August, 1962. On 1st December, 1962, the price was increased to £80 per ton. (b) Silver prices shown represent export parity calculated from London Metal Exchange prices. (c) Average market price was used subsequent to 30th June, 1959. On 1st January, 1958, a minimum price was fixed at £90 and this minimum was raised to £100 on 22nd December, 1958. The minimum price was abolished on 1st July, 1959.

7. Production in Principal Countries.—The following table shows, for the years 1957 to 1961, particulars of lead, silver and zinc production (mine basis) in principal producing countries, together with the estimated world total.

## LEAD, SILVER AND ZINC: MINE PRODUCTION IN PRINCIPAL COUNTRIES

(Source: Division of Minerals, United States Bureau of Mines)

Country	1957	1958	1959	1960	1961
LEAD ('000 tons)					
U.S.S.R.(a) .. .. .	277	295	304	304	348
Australia .. .. .	334	328	316	308	270
United States of America .. .. .	302	239	228	220	234
Canada .. .. .	162	167	167	184	208
Mexico .. .. .	211	199	188	188	178
Peru .. .. .	135	132	113	130	132
<i>Estimated World Total</i> .. .. .	<i>2,360</i>	<i>2,310</i>	<i>2,290</i>	<i>2,330</i>	<i>2,375</i>

SILVER ('000 fine oz.)					
Mexico .. .. .	47,150	47,592	44,075	44,526	40,342
United States of America .. .. .	38,165	34,111	31,194	30,766	34,794
Peru .. .. .	24,845	25,918	27,225	30,755	33,582
Canada .. .. .	28,823	31,163	31,924	34,017	31,168
U.S.S.R.(a) .. .. .	25,000	25,000	25,000	25,000	25,000
Australia .. .. .	15,811	16,340	15,161	15,216	13,059
Japan .. .. .	6,544	6,552	6,651	6,913	7,947
Germany, Eastern(a) .. .. .	4,800	4,800	4,800	4,800	4,800
Bolivia .. .. .	5,375	6,051	4,504	4,887	3,900
Congo .. .. .	3,045	3,794	4,768	3,963	3,470
<i>Estimated World Total</i> .. .. .	<i>231,100</i>	<i>239,000</i>	<i>221,900</i>	<i>240,200</i>	<i>231,800</i>

ZINC ('000 tons)					
United States of America .. .. .	475	368	380	389	415
U.S.S.R.(a)(b) .. .. .	295	321	330	339	397
Canada .. .. .	369	380	354	363	371
Australia .. .. .	319	294	276	317	311
Mexico .. .. .	239	221	260	258	265
Peru .. .. .	152	133	141	175	173
Japan .. .. .	134	141	140	154	165
Poland .. .. .	129	121	127	142	137
<i>Estimated World Total</i> .. .. .	<i>3,100</i>	<i>3,000</i>	<i>3,020</i>	<i>3,200</i>	<i>3,320</i>

(a) Estimated.

(b) Smelter production.

## § 5. Copper

1. **Historical.**—A brief history of copper-mining in Australia may be found in previous issues of the Year Book (see No. 48, p. 1070).

2. **Assistance to the Copper Mining Industry.**—For particulars, see para. 3(i)(c), page 1142.

3. **Methods of Mining and Treatment.**—Most of the large copper ore bodies contain the mineral chalcopyrite, an iron-copper sulphide. Copper ore is mined by open-cut methods at Mount Morgan, Mount Isa and Mount Lyell and by underground methods at Mount Isa and Ravensthorpe (Western Australia). Oxidized copper ore is mined at Mount Isa and at numerous other localities, mainly in Western Australia.

It is the practice for the sulphide ore to be finely ground and for the chalcopyrite contained in it to be recovered by flotation. At Mount Lyell and Mount Morgan, the tailings from the copper flotation are subjected to a further flotation and a pyrite concentrate is produced. The oxidized ore mined at Mount Isa is not concentrated and is fed direct to the smelters.



4. *Mine Production.*—The following table shows for 1961 the copper content of all minerals produced in the several States and the Northern Territory.

**COPPER: CONTENT OF ORES AND CONCENTRATES PRODUCED, 1961**  
(Tons)

Mineral in which contained	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	Aust.
Copper ore, concentrate, etc. ..	983	8	65,983	2	2,206	11,694	10,652	91,528
Lead concentrate ..	2,045	..	522	..	..	79	..	2,646
Lead-copper concentrate ..	..	..	..	..	..	731	..	731
Zinc concentrate ..	482	..	..	..	..	239	..	721
<b>Total .. ..</b>	<b>3,510</b>	<b>8</b>	<b>66,505</b>	<b>2</b>	<b>2,206</b>	<b>12,743</b>	<b>10,652</b>	<b>95,626</b>

The following were the principal sources of copper during 1961.

- (i) *New South Wales.* Most of the copper produced was contained in lead concentrate milled at Broken Hill. At Captain's Flat, nearly all the copper was contained in copper concentrate, but reserves were nearly exhausted. (The mine has since closed down.)
- (ii) *Victoria.* One mine produced a small quantity of copper ore during 1961.
- (iii) *Queensland.* Mount Isa was the most important copper producing centre in Australia, its 1961 output being 60 per cent. of the Australian total. The copper produced at Mount Isa is contained in copper sulphide concentrate, oxidized copper ore and lead concentrate. Copper concentrate produced at Mount Morgan contained most of the remainder.
- (iv) *South Australia.* Only a small quantity of copper ore for fertilizer was produced during 1961.
- (v) *Western Australia.* Two-thirds of the copper mined was contained in copper concentrate produced at Ravensthorpe. The remainder was contained in copper ore won at various localities in the State for fertilizer manufacture.
- (vi) *Tasmania.* Most of the State's production was at Mount Lyell, where copper was contained in copper concentrate, ore and precipitate. Lead-copper concentrate, lead concentrate and zinc concentrate milled at Rosebery made up most of the remainder of Tasmania's production.
- (vii) *Northern Territory.* Copper concentrate from Tennant Creek and copper concentrate and precipitate from Rum Jungle contained almost all of the Territory's output of copper.

The table hereunder shows the quantities of copper contained in minerals produced in the several States and the Northern Territory during the years 1957 to 1961.

**COPPER: CONTENT OF ORES AND CONCENTRATES PRODUCED**  
(Tons)

State or Territory	1957	1958	1959	1960	1961
New South Wales .. ..	4,382	4,023	3,728	3,572	3,510
Victoria .. ..	..	..	14	..	8
Queensland .. ..	35,786	50,511	66,798	82,753	66,505
South Australia .. ..	2	1	16	5	2
Western Australia .. ..	788	1,107	2,197	1,661	2,206
Tasmania .. ..	10,984	11,413	12,244	11,680	12,743
Northern Territory .. ..	7,313	8,660	9,953	9,764	10,652
<b>Australia .. ..</b>	<b>59,255</b>	<b>75,715</b>	<b>94,950</b>	<b>109,435</b>	<b>95,626</b>

In New South Wales, the search for ore in the Cobar mining field was continued during 1961. The prospecting methods employed included geological mapping, geophysical and geochemical surveys and diamond drilling from the surface and from underground shafts. In 1962, development work started on the site of an old mine, 7 miles north of Cobar. This mine is expected to produce about 80,000 tons of copper annually after 1965.

**5. Smelter and Refinery Production of Copper.**—Most of the copper concentrate milled in Australia is smelted locally, blister copper being produced at Mount Isa, Mount Morgan, Mount Lyell and Port Kembla.

Blister copper smelted at Mount Isa is railed to Townsville for electrolytic refining. Mount Lyell blister copper is electrolytically refined at Mount Lyell and the bulk is re-melted and cast into primary shapes at Port Kembla. Mount Morgan blister copper is shipped to Port Kembla, where together with blister produced at Port Kembla, it is refined. Most Port Kembla copper is electrolytically refined. Fire refining, which is a cheaper process and undertaken when there are no other metals to be recovered, has been used to a lesser extent. Copper by-products from lead smelting operations at Port Pirie are also treated at Port Kembla.

At Port Kembla, gold and silver contained in electrolytic refining tank house slimes from Mount Lyell, Townsville, and Port Kembla are recovered.

In the following table, details are given of the production of blister copper, and the production and exports of refined copper for the years 1957 to 1961.

#### METALLIC COPPER: PRODUCTION AND EXPORTS, AUSTRALIA

(Source: Bureau of Mineral Resources)

(Tons)

Particulars	1957	1958	1959	1960	1961
Blister copper production ..	50,403	64,608	68,494	71,037	62,497
Refined copper production ..	32,880	43,276	51,593	70,652	63,723
Exports of blister and refinery shapes .. .. .	19,079	14,421	18,974	14,079	24,095

**6. Prices.**—Details of average market prices for the years 1958 to 1962 are given in terms of Australian currency and sterling in the following table.

#### AVERAGE PRICES OF ELECTROLYTIC COPPER IN AUSTRALIA AND THE UNITED KINGDOM

(£ per ton)

Country	1958	1959	1960	1961	1962
Australia — in Australian currency(a) .. ..	284	312	324	307	305
United Kingdom—in sterling	193	235	239	228	232

(a) Ex-works Port Kembla.

**7. Production in Principal Countries.**—The following table shows the mine production of copper for the years 1957 to 1961 in the principal producing countries and the estimated world production in those years.

**COPPER: MINE PRODUCTION IN PRINCIPAL COUNTRIES**

(Source: Division of Minerals of the United States Bureau of Mines)

('000 tons)

Country	1957	1958	1959	1960	1961
United States of America ..	970	874	736	964	1,040
Rhodesia and Nyasaland ..	432	401	545	581	579
Chile .. .. .	478	460	538	524	539
U.S.S.R.(a) .. .. .	402	420	429	491	536
Canada .. .. .	321	308	353	392	402
Congo(b) .. .. .	238	234	278	297	291
Peru .. .. .	56	53	49	179	195
Australia .. .. .	59	76	95	109	96
Japan .. .. .	80	80	84	88	95
South Africa .. .. .	46	49	48	45	52
Philippines .. .. .	40	46	49	43	51
Mexico .. .. .	60	64	56	59	49
<i>Estimated World Total ..</i>	<i>3,473</i>	<i>3,375</i>	<i>3,598</i>	<i>4,143</i>	<i>4,330</i>

(a) Estimated.

(b) Smelter production.

**§ 6. Tin**

1. **Historical.**—A brief history of tin-mining in Australia may be found in previous issues of the Year Book (see No. 48, p. 1073).

2. **Methods of Mining and Treatment.**—All tin produced in Australia is contained in tin concentrate, which is usually of the mineral cassiterite (tin oxide). The greater proportion of the production is obtained from alluvial workings as a gravity concentrate. In the lode deposits, tin is usually not associated with other recoverable minerals. However, at two mines in Tasmania tin is associated with wolfram and sulphide minerals. At these mines, a gravity concentrate of tin, wolfram and sulphide minerals is obtained and from this the wolfram is separated by electromagnetic means. The tin and sulphide minerals are separated by flotation, the sulphides being floated off and the tin remaining as tailings.

3. **Mine Production.**—The following table sets out the tin content of tin concentrate produced in Australia during the years 1957 to 1961. No tin is recorded from minerals other than tin concentrate.

**TIN: CONTENT OF TIN CONCENTRATES PRODUCED**

(Tons)

State or Territory	1957	1958	1959	1960	1961
New South Wales .. ..	211	239	174	223	173
Victoria .. .. .	(a)	..	..	..	..
Queensland .. .. .	772	1,019	(b) 1,104	(b) 885	(b) 1,350
Western Australia .. ..	182	94	174	190	231
Tasmania .. .. .	777	883	890	884	986
Northern Territory .. ..	10	2	9	20	5
<b>Australia .. .. .</b>	<b>1,952</b>	<b>2,237</b>	<b>2,351</b>	<b>2,202</b>	<b>2,745</b>

(a) Less than half a ton.

(b) Estimated.

The following were the principal sources of production in 1961.

- (i) *New South Wales.* Virtually all production was from alluvial deposits. The New England region, mainly around Tingha, Deepwater, Emmaville and Tenterfield, produced over 80 per cent. of the total production.
- (ii) *Queensland.* Most of the tin concentrate produced was from the Herberton field, principally alluvial tin concentrate being produced. Tin concentrate was also produced in the Chillagoe, Kangaroo Hills and Cooktown districts.
- (iii) *Western Australia.* Nearly all the tin concentrate produced was alluvial tin won from the Pilbara field.
- (iv) *Tasmania.* Most of the tin concentrate produced was won in the north-east part of the State, from both lode and alluvial deposits. Wolfram concentrate, as well as tin concentrate, was produced.
- (v) *Northern Territory.* Almost the whole output of tin came from a single mine at Moun! Masson.

4. **Smelter and Refinery Production.**—Except for occasional small parcels of concentrate shipped to overseas smelters, all local production is treated by the two tin smelters located in Sydney.

The production of refined tin in Australia from locally produced tin concentrate during recent years, as recorded by the Bureau of Mineral Resources, was as follows:—1958, 2,121 tons; 1959, 2,226 tons; 1960, 2,254 tons; 1961, 2,546 tons; and 1962, 2,704 tons.

Consumption of refined tin has increased substantially in recent years following the introduction of tin-plate production in Australia; hot-dip plating began in 1957 and the electrolytic plant at Port Kembla, New South Wales, commenced operations early in 1962.

5. **Prices.**—Details of the movement in average market prices of tin for the years 1958 to 1962 are given in terms of Australian currency and sterling in the following table.

#### AVERAGE PRICE OF TIN IN AUSTRALIA AND THE UNITED KINGDOM

(£ per ton)

Country	1958	1959	1960	1961	1962
Australia — in Australian currency	995	1,058	1,042	1,169	1,163
United Kingdom—in sterling	735	786	794	895	898

6. **Production in Principal Countries.**—World production of tin reached its maximum in 1941, when 241,400 tons were recorded. Australia's contribution to the world's tin production is slightly above 1 per cent.

The mine production of tin for the principal producing countries and the estimated world totals in 1960 and 1961 were as follows.

## TIN: PRODUCTION IN PRINCIPAL COUNTRIES

(Source: Division of Minerals of the United States Bureau of Mines)

(Tons)

Country	Production		Country	Production	
	1960	1961		1960	1961
Malaya, Federation of	51,979	56,028	Australia .. ..	2,202	2,745
China(a) .. ..	28,000	30,000	South Africa ..	1,276	1,450
Bolivia .. ..	19,406	20,408	United Kingdom ..	1,192	1,210
Indonesia .. ..	22,599	18,574	Burma(b) .. ..	1,100	1,100
Thailand .. ..	12,080	13,270	Japan .. ..	842	852
Nigeria .. ..	7,675	7,779	<i>Estimated World</i>		
Congo(b) .. ..	8,934	6,601	<i>Total</i> ..	181,500	188,000

(a) Estimated smelter production.

(b) Estimated.

## § 7. Iron

1. **Historical.**—Iron ore was first mined in New South Wales to supply raw material for the ironworks that were established near Mittagong in 1852. Iron ore for the ironworks established later at Lithgow was drawn from Carcoar, near Bathurst.

In South Australia, the iron ore deposits of the Middleback ranges, near Whyalla, were first mined by the Broken Hill Proprietary Co. Ltd. in 1900 to provide a flux for lead smelting operations at Port Pirie. When that company opened its Newcastle steelworks in 1915, it greatly expanded ore production from the Middleback Ranges and most of the Australian steel industry's requirements of iron ore still come from this source.

Regular shipments of iron ore from Yampi Sound, north of Derby in Western Australia, to the steelworks at Port Kembla commenced in 1951. Iron ore for the iron smelter at Wundowie, which commenced operations in 1948, has in recent years been provided entirely from the deposits at Koolyanobbing, near Southern Cross. The Koolyanobbing deposits will be worked on a very much larger scale eventually and will supply the ore for an iron and steel industry to be established at Kwinana, south of Perth. A blast furnace is expected to be in operation in 1968.

In December, 1960, the Commonwealth Government announced a partial relaxation of the embargo on the export of iron ore which had been in force since 1938. Permission has been granted for the export of iron ore from Talling Peak-Koolanooka and of pelletized ore from the Scott River area, both in Western Australia, and from small deposits in New South Wales and Queensland.

The modification of the export embargo has greatly increased exploration for iron ore. Of particular importance was the discovery of extensive deposits in the Pilbara district, in the north-west of Western Australia. An extensive testing programme is in hand to determine the size and grade of these deposits. Early in 1963, the Western Australian Government announced that reserves in that State were conservatively estimated at 8,000 million tons, the bulk of which was in the Pilbara region.

Recent work at Mount Goldsworthy, Western Australia, and Savage River, Tasmania, has indicated that reserves are substantially greater than originally estimated. Further testing was made of other ore deposits located at Roper River (Northern Territory) and at Constance Range (Queensland).

Besides the large quantities of iron ore that are mined for metal extraction purposes, smaller quantities of iron oxide are mined for other purposes, such as gas purification, cement manufacture, coal washing and fluxing.

**2. Methods of Mining and Treatment.**—Currently all iron ore and iron oxide is won by opencut mining. The ore is selectively mined, crushed and screened to provide a standard assay and size for blast furnace use. Some concentration of lower grade ore from the Iron Knob area in South Australia is now carried out. Early in 1963, a scree treatment plant began operating at Iron Knob. Concentrates produced had an iron content of over 60 per cent. and recovery was of the order of 85 per cent. Sintering is now carried out at both Newcastle and Port Kembla to provide an improved blast furnace feed.

**3. Mine Production of Iron Ore.**—Iron oxide deposits exist in all States and in the Northern Territory, but at present iron oxide for metal extraction purposes, termed iron ore in this chapter, is produced in two States only. The following table shows the estimated iron content of iron ore produced during the years 1957 to 1961.

#### IRON: ESTIMATED IRON CONTENT OF IRON ORE PRODUCED

(Tons)

State	1957	1958	1959	1960	1961
South Australia .. ..	2,199,981	2,173,922	2,218,846	2,227,551	2,581,313
Western Australia .. ..	262,519	365,275	480,769	586,404	852,663
<b>Australia .. ..</b>	<b>2,462,500</b>	<b>2,539,197</b>	<b>2,699,615</b>	<b>2,813,955</b>	<b>3,433,976</b>

The producing centres during 1961, were as follows.

- (i) *South Australia.* 3,982,493 tons of iron ore were drawn from the Iron Monarch and Iron Baron deposits in the Middleback Ranges. Selected foundry grade ore was diverted as required to the Whyalla blast furnace, but the greater part was shipped to Newcastle and Port Kembla for smelting. Production of beneficiated iron ore commenced at Iron Knob in the latter part of 1962.
- (ii) *Western Australia.* Ore shipped from Yampi Sound, north of Derby, to New South Wales for sintering and smelting amounted to 1,284,768 tons. A quantity of 74,780 tons was mined at Koolyanobbing, near Southern Cross, for pig iron production at Wundowie.

**4. Mine Production of Iron Oxide.**—Production of iron oxide, excluding that used for metal extraction (iron ore) and mineral pigments, in the several States during 1961, according to end use, is shown in the following table.

#### IRON OXIDE PRODUCTION, 1961

(Tons)

Use	New South Wales	Victoria	Queensland	South Australia	Tasmania	Australia
For gas purification ..	565	690	..	..	191	1,446
For cement manufacture ..	17,922	..	1,746	..	2,118	21,786
For coal washing ..	1,260	..	..	..	..	1,260
For fluxing .. ..	..	..	..	8,850	..	8,850
<b>Total .. ..</b>	<b>19,747</b>	<b>690</b>	<b>1,746</b>	<b>8,850</b>	<b>2,309</b>	<b>33,342</b>

The principal sources of iron oxide production during 1961 were as follows.

- (i) *New South Wales.* Quantities of iron oxide for gas purification were obtained from deposits near Port Macquarie, while that used for cement manufacture was mined from the Lithgow, Mudgee and Rylstone mining divisions. Magnetite, used in coal washing, was produced in the Copmanhurst mining division and also from beach sand deposits near Murwillumbah.
- (ii) *Victoria.* Limonite ore used for gas purification was mined at Buchan.
- (iii) *Queensland.* Iron oxide produced for cement manufacture was mined near Townsville.
- (iv) *South Australia.* A quantity of 8,850 tons drawn from the Middleback Ranges was dispatched to Port Pirie for use as a flux in lead smelting operations.
- (v) *Tasmania.* Iron oxide for gas purification and cement manufacture was mined in the vicinity of Penguin.

Particulars of Australian production of iron oxide according to end use are shown in the following table.

#### IRON OXIDE PRODUCTION: AUSTRALIA

(Tons)

Use	1957	1958	1959	1960	1961
For gas purification ..	5,338	2,864	4,355	2,970	1,446
For cement manufacture ..	9,759	6,093	9,485	15,776	21,786
For coal washing ..	4	25	30	386	1,260
For fluxing ..	4,650	8,100	9,600	9,600	8,850
<b>Total ..</b>	<b>19,751</b>	<b>17,082</b>	<b>23,470</b>	<b>28,732</b>	<b>33,342</b>

5. **Iron and Steel Production.**—The production of pig-iron and steel ingots in Australia, of which New South Wales is the main producing State, is shown in the following table.

#### PIG-IRON AND INGOT STEEL: PRODUCTION, AUSTRALIA

(Tons)

Year ended 31st May	Pig-iron (a)	Steel ingots (b)	Year ended 31st May	Pig-iron (a)	Steel ingots (b)
1953 ..	1,691,693	1,801,028	1958 ..	2,283,925	3,037,705
1954 ..	1,826,711	2,116,813	1959 ..	2,293,709	3,203,584
1955 ..	1,868,841	2,208,708	1960 ..	2,655,237	3,519,719
1956 ..	1,910,521	2,320,289	1961 ..	3,001,800	3,748,037
1957 ..	2,098,352	2,773,995	1962 ..	3,380,334	4,075,699

(a) Includes pig-iron for castings; excludes ferro-alloys.

(b) Includes recovery from scrap.

In 1962, ten blast furnaces were operating in Australia; four at Port Kembla and three at Newcastle, in New South Wales, two at Wundowie in Western Australia, and one at Whyalla, South Australia. Production of pig-iron throughout 1962 was at a record level and during October, 1962, the No. 4 blast furnace at Port Kembla produced 92,680 short tons of pig-iron, claimed to be a new world production record for a single unit. A fourth blast furnace with a daily capacity of 1,400 tons of pig-iron was commissioned at Newcastle in July, 1963.

During 1962, the bulk of Australia's ingot steel production was obtained from 27 open hearth furnaces (13 at Port Kembla and 14 at Newcastle). In addition, 3 other open hearth furnaces and 14 electric furnaces were in operation during 1962 for the production of special steels and ferro-alloys. In March, 1962, the fifth and largest furnace of the No. 2 open hearth shop at Port Kembla was commissioned. By the end of 1962, all furnaces in this shop were using oxygen lancing equipment, thereby increasing capacity at Port Kembla from 2.9 million tons to 3.25 million tons of ingot steel per annum. In December, 1962, the first basic oxygen steelmaking furnace was commissioned at Newcastle, and a second unit was commissioned in January, 1963. Although these two units will eventually replace ten of the open-hearth furnaces, the net capacity of the Newcastle steelworks will be increased from 1.3 million tons to 1.6 million tons per annum.

6. **Production of Iron and Steel in Principal Countries.**—Particulars of the production in the principal countries and the estimated world total production during the calendar years 1960 and 1961 are shown in the following table.

#### IRON AND STEEL: PRODUCTION IN PRINCIPAL COUNTRIES

(Source: Division of Minerals of the United States Bureau of Mines)

('000 Tons)

Country	Pig-iron and ferro-alloys		Steel ingots and castings	
	1960	1961	1960	1961
United States of America ..	61,268	59,569	88,645	87,513
U.S.S.R. ..	46,018	50,089	64,262	69,583
Germany, Federal Republic ..	25,332	25,019	33,562	32,930
Japan ..	12,147	16,126	21,788	27,822
United Kingdom ..	15,763	14,768	24,305	22,100
France ..	14,138	14,613	17,008	17,322
China (Mainland) ..	27,054	21,696	18,161	14,768
Italy ..	2,779	3,150	8,099	8,979
Poland ..	4,491	4,695	6,772	7,120
Czechoslovakia ..	4,621	4,893	6,661	6,932
Belgium ..	6,449	6,343	7,074	6,900
Canada ..	3,943	4,503	5,170	5,773
Luxembourg ..	3,726	3,773	4,020	4,048
India ..	4,126	4,616	3,235	4,007
Australia ..	2,876	3,155	3,694	3,877
Sweden ..	1,604	1,733	3,167	3,501
Germany, Eastern ..	1,963	1,997	3,284	3,389
Austria ..	2,196	2,226	3,113	3,052
<i>Estimated World Total ..</i>	<i>254,500</i>	<i>258,000</i>	<i>340,500</i>	<i>350,400</i>



## § 8. Mineral Sands

1. **Historical.**—Since the war, the growing world demand for rutile as a coating for electric welding rods and as a source of titanium metal, and for ilmenite in the production of titanium pigments, has brought about a rapid expansion of Australian mineral sands mining. Australia is the largest producer of rutile and zircon in the world, and nearly all this production comes from the mineral sands deposits on the east coast. The ilmenite produced on the east coast has proved unsuitable for titanium oxide pigment manufacture, and most of the production is discarded. However, ilmenite produced from mineral sands mined in Western Australia since 1956 has a much lower chromic oxide content than east coast ilmenite and is therefore suitable for pigment production. Operators produce separate concentrates of rutile, zircon and ilmenite and, in addition, a few companies produce high-grade monazite concentrate.

Following the record post-war output of rutile in 1957, production was on a reduced scale during the period 1958–60, mainly because of greatly reduced prices offering on world markets. However, during the second half of 1961 and throughout 1962, the price of rutile improved and production increased. Strengthening of the rutile market was due in part to the rationalization of the Australian industry and also to increased demand for rutile.

2. **Methods of Mining and Treatment.**—Mining on the east coast of Australia is mainly by suction dredging. In Western Australia, ilmenite is mined hydraulically or by earth-moving equipment. Heavy mineral concentrates are recovered by wet gravity concentration, using a combination of concentrating spirals and shaking tables. The constituent minerals of the heavy-mineral concentrates, mainly rutile, zircon, ilmenite and monazite are separated by electromagnetic and electrostatic methods.

3. **Mine Production.**—(i) *Titanium Dioxide.* The following table shows the quantities of titanium dioxide contained in rutile and ilmenite concentrates produced during the years 1957 to 1961.

## TITANIUM DIOXIDE: CONTENT OF CONCENTRATES PRODUCED

(Tons)

State	1957	1958	1959	1960	1961
-------	------	------	------	------	------

## CONTAINED IN RUTILE CONCENTRATE

New South Wales .. ..	83,363	44,915	44,792	52,262	64,284
Queensland .. ..	41,500	35,755	34,736	33,260	33,056
Western Australia .. ..	..	285	96	493	880
<i>Australia</i> .. ..	<i>124,863</i>	<i>80,955</i>	<i>79,624</i>	<i>86,015</i>	<i>98,220</i>

## CONTAINED IN ILMENITE CONCENTRATE

New South Wales .. ..	485	59	111	537	905
Queensland .. ..	78	..	..	21	2
Western Australia .. ..	38,325	38,219	45,566	58,171	92,838
<i>Australia</i> .. ..	<i>38,888</i>	<i>38,278</i>	<i>45,677</i>	<i>58,729</i>	<i>93,745</i>

(ii) *Zircon.* The quantities of zircon mineral contained in zircon concentrate produced during the years 1957 to 1961 are shown in the following table.

## ZIRCON: CONTENT OF ZIRCON CONCENTRATE PRODUCED

(Tons)

State	1957	1958	1959	1960	1961
New South Wales .. ..	58,747	32,230	71,156	65,764	98,421
Queensland .. ..	28,956	26,412	34,504	31,752	28,775
Western Australia .. ..	..	103	6,692	(a) 3,978	(a) 7,287
<b>Australia .. ..</b>	<b>87,703</b>	<b>58,745</b>	<b>112,352</b>	<b>101,494</b>	<b>134,483</b>

(a) Estimated.

(iii) *Other Products.* During 1961, small quantities of monazite concentrate, magnetite and garnet concentrate were also recovered from mineral sands.

(iv) *Sources of Production.* The principal sources of mineral sands treated during 1961 were as follows.

(a) *New South Wales and Queensland.* The main deposits of mineral sands occur along the eastern Australian coast from Wyong in New South Wales to Curtis Island, Queensland. At present, the principal mining operations are located between Lake Munmorah and Newcastle in the south, between Laurieton and Crescent Head on the central coast, and between Byron Bay and North Stradbroke Island in the north. Most mining operations are now confined to dunes and swampy areas lying behind beaches where high-grade deposits are now exhausted.

(b) *Western Australia.* The chief deposits of mineral sands occur in the south-west corner of the State, between Bunbury and Wonnerup. During 1961, the bulk of production was from inland deposits in the Capel-Yoganup area.

## § 9. Aluminium

1. *Mine Production.*—The source of aluminium is bauxite. Until recent years, the only bauxite production in Australia was from small deposits in Queensland, New South Wales and Victoria. Production from these deposits has been used mainly by the chemical and steel industries.

Large deposits of bauxite exist at Weipa (North Queensland), Gove (Northern Territory) and Darling Range (Western Australia). The deposits at Weipa and the Darling Range are now being developed, and trial shipments from both deposits have been sent to Japan for smelting. There have also been some shipments from Weipa to the Bell Bay alumina plant. The Weipa deposit is being developed for the production of alumina (plant capacity 360,000 tons annually) at that centre and also for the export of bauxite. This plant will supply the requirements of an aluminium smelter (plant capacity 120,000 tons annually) to be installed at Invercargill (New Zealand) and at least part of the requirement of the Bell Bay smelter in Tasmania. At Kwinana (Western Australia), an alumina plant (capacity 200,000 tons annually) is being constructed to use Darling Range bauxite. The alumina will be shipped to Geelong (Victoria) for the production of metal. In addition, some alumina is likely to be exported from Kwinana. Deposits at Gove are to be developed in the first instance for the export of bauxite to Japan. It is envisaged that 10 million tons will be shipped over a period of eighteen years. Investigations are to be made into the possibility of establishing an alumina plant at Gove. The alumina content of bauxite produced in Australia during the years 1957 to 1961 is shown in the following table.

**ALUMINA: CONTENT OF BAUXITE PRODUCED**  
(Tons)

State	1957	1958	1959	1960	1961
New South Wales .. ..	1,354	633	1,648	1,386	929
Victoria .. ..	1,910	2,304	1,991	2,306	(a)
Queensland(b) .. ..	494	596	..	14,442	(a)
Western Australia(b) .. ..	..	..	3,275	13,259	..
<b>Australia .. ..</b>	<b>3,758</b>	<b>3,533</b>	<b>6,914</b>	<b>(c) 31,393</b>	<b>(c) 7,464</b>

(a) Not available for publication.

(b) Estimated.

(c) Partly estimated.

2. **Refinery Production.**—There is a refinery for the production of alumina and refined aluminium at Bell Bay on the River Tamar in Northern Tasmania. The location of this refinery was determined by the availability of large supplies of hydro-electric power. Production of alumina commenced in February, 1955, and of refined aluminium in September, 1955. The capacity of the Bell Bay plant was increased to 35,000 tons in 1962 and will be further increased to 52,000 tons in 1963. A new smelter with an ultimate capacity of 40,000 tons is under construction at Geelong (Victoria). The plant is expected to come into production in 1963. The following table shows the production of alumina and refined aluminium in Australia during the years 1957 to 1961. Details of production in 1962 are not available for publication.

**ALUMINA AND REFINED ALUMINIUM: PRODUCTION, AUSTRALIA**  
(Source: Bureau of Mineral Resources)  
(Tons)

Refinery product	1957	1958	1959	1960	1961
Alumina .. ..	20,116	22,490	26,900	29,801	29,468
Refined aluminium .. ..	10,624	10,869	11,370	11,655	13,204

### § 10. Uranium

Uranium concentrate has been produced in Australia since 1954, but particulars of the quantity of  $U_3O_8$  concentrate produced and its value are not available for publication. All  $U_3O_8$  concentrate is exported overseas. During 1962, the principal producing centres were as follows.

- (i) *Queensland.* Uranium ore was mined by opencut methods at Mary Kathleen, 33 miles east of Mount Isa.
- (ii) *South Australia.* The Radium Hill mine closed down in December, 1961, and the Port Pirie plant ceased production of uranium oxide late in February, 1962.
- (iii) *Northern Territory.* At Rum Jungle, uranium-copper and copper ores were treated to produce  $U_3O_8$  concentrate, copper concentrate and copper precipitate. Production of concentrates was from ore stockpiled when mining operations at Rum Jungle ceased late in 1958. Shipments of uranium oxide from the Rum Jungle plant to the Combined Development Agency were expected to be completed early in 1963. After this, ore from the Rum Jungle Creek South deposit will be treated at the Rum Jungle plant.

In the South Alligator River area, the El Sherana mine was operated to supply ore to a concentrating plant at Moline.

The contract for the supply of uranium oxide to the United Kingdom Atomic Energy Authority from Mary Kathleen was expected to be completed by the end of 1963. Domestic production from then on will be confined to Rum Jungle and Moline. Existing contracts with the U.K. Atomic Energy Authority are expected to keep the Moline plant operating until 1965. Operations at Rum Jungle will be maintained at current levels and the uranium oxide produced will be available for sale overseas.

## § 11. Other Metallic Minerals

1. **Tungsten.**—In recent years, Tasmania has been the principal State producing tungsten ores, scheelite being mined on King Island in Bass Strait and wolfram being mined in association with tin ores in the north-east part of the State. Because of low world prices, scheelite production on King Island ceased in August, 1958, but production was recommenced in 1960. Low prices have persisted and production during 1962 was on a limited scale.

Particulars of the production of tungstic oxide contained in scheelite and wolfram concentrates produced during the years 1957 to 1961 are shown in the following table.

**TUNGSTIC OXIDE (WO<sub>3</sub>): CONTENT OF CONCENTRATES PRODUCED**  
(Tons)

State	1957	1958	1959	1960	1961
<b>CONTAINED IN SCHEELITE CONCENTRATE</b>					
New South Wales .. ..	1	1	(a)	(a)	(a)
Queensland .. ..	1	..	..	..	..
Tasmania .. ..	948	477	..	291	709
<i>Australia</i> .. ..	950	478	(a)	291	709
<b>CONTAINED IN WOLFRAM CONCENTRATE</b>					
New South Wales .. ..	(a)	..	..	..	(a)
Queensland .. ..	19	5	..	..	1
Tasmania .. ..	391	360	645	804	810
Northern Territory .. ..	49	7	8	16	16
<i>Australia</i> .. ..	459	372	653	820	827

(a) Less than half a ton.

2. **Manganese.**—In recent years, Western Australia has been the principal State producing manganese ore, mined mainly from the Pilbara goldfield.

The following table shows the manganese content of metallurgical grade and the manganese dioxide content of battery and other grades of manganese ore produced during the years 1957 to 1961.

**MANGANESE: CONTENT OF MANGANESE ORE PRODUCED**  
(Tons)

Year	Metallurgical grade In terms of manganese (Mn) content				Battery and other grades In terms of manganese dioxide (MnO <sub>2</sub> ) content				
	N.S.W.	Q'land (a)	W. Aust.	Aust.	N.S.W.	S. Aust.	W. Aust.	N. Terr.	Aust.
1957 ..	391	557	33,956	34,904	385	..	186	668	1,239
1958 ..	516	3,181	21,926	25,623	511	..	195	2,113	2,819
1959 ..	620	4,350	35,996	40,966	907	..	162	1,406	2,475
1960 ..	342	1,670	26,561	28,585	623	45	9	940	1,617
1961 ..	..	1,109	39,880	40,989	632	(a) 192	204	76	1,104

(a) Estimated.

(b) Includes Victoria (12 tons).

The quantity of manganese dioxide recovered at the Risdon, Tasmania, refinery during 1961 amounted to 3,073 tons, of which 372 tons were sold for chemical processing and trace element fertilizer.

3. **Other.**—Production in 1961 (1960 shown in parentheses) of other metallic minerals are listed in the following paragraphs.

(i) *Antimony.* The antimony content of antimony-bearing minerals produced was 680 tons (786 tons). Of this amount, 563 tons (632 tons) were in lead concentrate and 117 tons (154 tons) in 190 tons (256 tons) of antimony ore and concentrate.

(ii) *Beryllium.* Production of beryllium ore was 306 tons (190 tons), which came mainly from Western Australia where the Pilbara and Gascoyne goldfields were the main producing areas. The beryllium oxide content of the ore was 3,585 units of 22.4 lb. (2,221 units).

(iii) *Chromite.* No chromite was produced in 1961. In the previous year, 529 tons were produced with an estimated chromic oxide content of 265 tons.

(iv) *Tantalite-columbite.* The production of tantalite-columbite concentrate was 31,808 lb. (23,677 lb.) and the whole of this output came from Western Australia. The tantalum pentoxide and columbium pentoxide content of the concentrates was 13,814 lb. (11,500 lb.).

(v) *Other.* Three ounces of platinum concentrate containing 2 oz. of platinum were obtained in New South Wales as a by-product of gold refining.

## § 12. Coal

1. **Historical.**—A brief history of coal-mining in Australia may be found in previous issues of the Year Book (*see* No. 48, p. 1086).

2. **Joint Coal Board.**—For details of the powers and functions of this Board, which has functioned since 1947, *see* page 887 of Official Year Book No. 39.

3. **Australia's Coal Reserves.**—The latest available estimates of the measured and indicated coal reserves of Australia are those prepared by the Mines Departments in the various States for the Coal Utilization Research Advisory Committee whose report was issued by the Department of National Development in 1962. This information is shown in the following table. It should be noted that reserves can only be included in the "measured and indicated" categories when sufficient exploratory and testing work has been completed.

### ESTIMATED COAL RESERVES OF AUSTRALIA

(Source: State Mines Departments)

(Million Tons)

State	Type of coal	Measured and indicated	Inferred
New South Wales .. ..	Bituminous.. ..	(a) 3,050	(b)
Victoria .. ..	" .. ..	20	10
" .. ..	Brown .. ..	54,700	43,000
Queensland .. ..	Bituminous, sub-bituminous ..	950	(c)
South Australia .. ..	Sub-bituminous .. ..	130	..
" .. ..	Lignite .. ..	530	..
Western Australia .. ..	Sub-bituminous .. ..	274	1,603
Tasmania .. ..	Bituminous.. ..	(d)	(e) 137

(a) Recoverable reserves. (b) In excess of 30,000 million tons. (c) In excess of 10,000 million tons. (d) Very small; measured reserves in Tasmania amount to only several thousand tons. (e) Includes both indicated and inferred reserves.

4. Mine Production of Black Coal.—Production of black coal according to rank in the several States during the years 1957 to 1961 is set out in the following table. The tonnages produced by underground mining and opencut mining are also shown.

**BLACK COAL: PRODUCTION**  
(Tons)

Particulars	1958	1959	1960	1961	1962
<b>NEW SOUTH WALES</b>					
Bituminous .. ..	15,840,550	15,712,440	17,736,994	19,020,805	19,030,418
Sub-bituminous ..	10,398	..	..	..	..
<i>Total</i> .. ..	<i>15,850,948</i>	<i>15,712,440</i>	<i>17,736,994</i>	<i>19,020,805</i>	<i>19,030,418</i>
Underground mines	15,130,633	15,278,162	16,981,561	18,188,613	18,195,881
Opencut mines ..	720,315	434,278	755,433	832,192	834,537
<b>VICTORIA</b>					
<i>Total(a)</i> .. ..	<i>108,359</i>	<i>90,438</i>	<i>76,972</i>	<i>66,363</i>	<i>56,721</i>
<b>QUEENSLAND</b>					
Semi-anthracite ..	55,190	51,849	47,762	56,437	68,363
Bituminous .. ..	2,392,435	2,476,479	2,531,581	2,650,367	2,654,313
Sub-bituminous ..	132,748	66,059	70,769	75,362	87,969
<i>Total</i> .. ..	<i>2,580,373</i>	<i>2,594,387</i>	<i>2,650,112</i>	<i>2,782,166</i>	<i>2,810,645</i>
Underground mines	2,098,030	2,142,302	2,269,564	2,157,790	2,196,872
Opencut mines ..	482,343	452,085	380,548	624,376	613,773
<b>SOUTH AUSTRALIA</b>					
<i>Total(b)</i> .. ..	<i>755,022</i>	<i>690,374</i>	<i>884,819</i>	<i>1,115,156</i>	<i>1,392,085</i>
<b>WESTERN AUSTRALIA</b>					
<i>Total(c)</i> .. ..	<i>870,882</i>	<i>911,435</i>	<i>922,393</i>	<i>765,740</i>	<i>919,112</i>
Underground mines	779,394	800,856	798,185	506,306	598,502
Opencut mines ..	91,488	110,579	124,208	259,434	320,610

NOTE.—See next page for footnotes.

**BLACK COAL: PRODUCTION—continued**  
(Tons)

Particulars	1958	1959	1960	1961	1962
<b>TASMANIA</b>					
Semi-anthracite ..	2,006	2,217	2,333	2,142	1,649
Bituminous ..	274,262	297,151	295,337	253,686	270,693
<b>Total</b> ..	<b>276,268</b>	<b>299,368</b>	<b>297,670</b>	<b>255,828</b>	<b>272,342</b>
Underground mines	260,100	281,310	281,662	241,812	262,137
Opencut mines ..	16,168	18,058	16,008	14,016	10,205
<b>AUSTRALIA</b>					
Semi-anthracite ..	57,196	54,066	50,095	58,579	70,012
Bituminous ..	18,615,606	18,576,508	20,640,884	21,991,221	22,012,145
Sub-bituminous ..	1,769,050	1,667,868	1,877,981	1,956,258	2,399,166
<b>Total</b> ..	<b>20,441,852</b>	<b>20,298,442</b>	<b>22,568,960</b>	<b>24,006,058</b>	<b>24,481,323</b>
Underground mines	18,376,516	18,593,068	20,407,944	21,160,884	22,702,198
Opencut mines ..	2,065,336	1,705,374	2,161,016	2,845,174	1,779,125

(a) Bituminous coal from underground mines.

(b) Sub-bituminous coal from an opencut mine.

(c) Sub-bituminous coal.

The principal producing centres during 1961 were as follows.

- (i) *New South Wales.* The principal deposits worked were in the vicinity of Newcastle, Cessnock and Singleton (northern field), Lithgow (western field), and Wollongong (southern field). Tonnages mined in 1961 were: northern field, 10,378,000 tons; southern field, 7,057,000 tons; and western field, 1,586,000 tons. All opencut coal was from the northern field.

The coal fields of New South Wales, predominantly bituminous, are the most important in Australia, in respect of the magnitude, quality and accessibility of reserves and the extent to which the deposits are being worked. Coal from the various seams differs in properties, coal from the Greta seam worked in the vicinity of Cessnock being particularly suitable for gas-making, while coal from the Victoria tunnel, Dudley, Young Wallsend and Borehole seams, all of which are mined near Newcastle, have coking properties and are used in the steelworks. Coking coal is also obtained from the Bulli seam which is mined near Wollongong and in the Burragorang Valley. A multi-purpose coal is available in the Singleton area, and steaming coals are mined around Newcastle, Lithgow, Cessnock and Wollongong.

- (ii) *Victoria.* Production of black coal was restricted to the Gippsland district. The State Coal Mine at Wonthaggi was the main producer, and the remaining production came from small privately-owned mines.
- (iii) *Queensland.* The principal producing centres were Ipswich, 1,666,243 tons; Mount Morgan, 325,111 tons; Bowen, 297,642 tons; and Clermont, 155,859 tons. Opencut methods were used on the Bowen, Clermont and Mount Morgan fields, and the total coal won by this means was 22 per cent. of total production.

- (iv) *South Australia.* Coal was mined only at Leigh Creek, 377 miles north of Adelaide.
- (v) *Western Australia.* The only coal deposits which have been developed on a commercial scale are at Collie in the south-west of the State, and all production during 1961 was from this source.
- (vi) *Tasmania.* Most of the coal produced was won in the north-east of the State, the principal producing centres in 1961 being Fingal, 111,272 tons; St. Mary's, 91,046 tons; and Avoca, 44,182 tons.

5. **Production of Black Coal Per Man-shift.**—(i) *Underground Mines.* The following table shows particulars of estimated black coal output per man-shift worked, (a) at the coal face, and (b) by all employees, in respect of underground mines for each State concerned and for Australia for the years 1957 to 1961. These estimates have been calculated by the Joint Coal Board from data collected fortnightly in respect of coal production and the number of man-shifts actually worked. In South Australia, black coal is won only by opencut mining.

**PRODUCTION OF BLACK COAL PER MAN-SHIFT: UNDERGROUND MINES**  
(Tons)

Year	N.S.W.	Vic.	Q'land	W. Aust.	Tas.	Australia
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**PRODUCTION PER MAN-SHIFT WORKED AT COAL FACE**

1957	..	..	13.19	2.01	7.13	5.88	7.60	11.02
1958	..	..	14.48	2.04	7.28	6.67	8.01	11.96
1959	..	..	18.07	2.10	7.53	7.60	7.34	14.13
1960	..	..	20.64	2.16	8.37	8.12	7.64	16.08
1961	..	..	24.61	2.15	8.69	8.09	8.77	19.04

**PRODUCTION PER MAN-SHIFT WORKED BY ALL EMPLOYEES**

1957	..	..	3.99	0.85	2.82	2.77	3.76	3.65
1958	..	..	4.35	0.89	2.90	3.02	3.91	3.95
1959	..	..	4.90	0.93	2.95	3.35	3.72	4.37
1960	..	..	5.39	0.94	3.19	3.62	3.87	4.81
1961	..	..	6.23	0.83	3.46	4.00	4.09	5.55

(ii) *Opencut Mines.* In the next table, the Joint Coal Board's estimates of production of black coal per man-shift worked by all employees in opencut mines are shown. There are no opencuts producing black coal in Victoria.

**PRODUCTION OF BLACK COAL PER MAN-SHIFT: OPENCUT MINES**  
(Tons)

Year			N.S.W.	Q'land	S. Aust.	W. Aust.	Tas.	Australia
1957	..	..	11.11	12.17	9.89	6.04	7.68	10.25
1958	..	..	11.31	13.63	11.46	6.78	10.42	11.47
1959	..	..	12.47	12.50	10.36	7.64	10.47	11.08
1960	..	..	22.15	10.96	12.46	8.01	9.38	13.79
1961	..	..	22.29	11.43	14.91	9.63	10.79	14.60



6. **Mine Production of Brown Coal.**—Brown coal is mined only in Victoria, and production in recent years has been as follows:—1958, 11,643,629 tons; 1959, 13,034,605 tons; 1960, 14,967,202 tons; 1961, 16,279,168 tons; and 1962, 17,137,436 tons. In the past ten years, the output of brown coal has nearly doubled.

7. **Value at the Mine in New South Wales.**—Particulars of the average values at the mine (or at screens or mine washeries where these are at a distance from the mine) of salable coal for each district and for New South Wales as a whole are shown in the following table for the years 1957 to 1961. Salable coal excludes miners' coal, coal consumed at the mines, and refuse, etc., removed by the use of hand-picking belts or at mine washeries. In calculating these values, most coal won by producer consumers is also excluded, and in respect of stocks of coal held at grass by the Commonwealth Government, only actual sales have been taken into account. No deduction has been made in respect of excise duty operative from 1st November, 1949.

**AVERAGE SELLING VALUE AT THE MINE PER TON OF SALABLE COAL:  
NEW SOUTH WALES**

(s. d.)

Year	Northern District	Southern District	Western District	Average for State
1957.. ..	58 3	55 7	50 7	56 9
1958.. ..	56 1	55 0	47 5	54 10
1959.. ..	52 5	54 4	47 6	52 7
1960.. ..	51 11	55 1	48 1	52 8
1961.. ..	51 5	55 11	46 9	52 3

8. **Values in New South Wales, United Kingdom and the United States of America.**—The following table shows for the years 1957 to 1961 average values of coal produced in New South Wales, Great Britain and the United States of America. The figures give an indication of changes in average value or price within each country, but they do not necessarily show the relative levels as between the countries concerned.

**PRODUCTION VALUES OF COAL PER TON: NEW SOUTH WALES, UNITED KINGDOM AND UNITED STATES OF AMERICA**

Country	1957	1958	1959	1960	1961
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
New South Wales—bituminous(a) ..	56 9	54 10	52 7	52 8	52 3
United Kingdom—deep-mined(b) ..	82 1	85 7	83 5½	86 1½	90 10½
United States of America— bituminous and lignite(c) ..	\$ 5.08	\$ 4.86	\$ 4.77	\$ 4.69	\$ 4.58

(a) Average selling value at the mine per ton of 2,240 lb.; the figures relate to salable coal and include excise duty. (b) Average value in sterling at the mine per ton of 2,240 lb. (c) Average value in United States currency at the mine per ton of 2,000 lb.

9. **Consumption of Coal in Australia.**—(i) *Black Coal.* Details of the production of black coal in Australia and its disposal are shown in the following table for the years 1957–58 to 1961–62.

**BLACK COAL: PRODUCTION AND CONSUMPTION**  
(<sup>'000</sup> Tons)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Production(a) .. ..	20,362	20,459	21,223	22,947	24,432
Imports .. ..	9	8	8	7	5
<b>Total .. ..</b>	<b>20,371</b>	<b>20,467</b>	<b>21,231</b>	<b>22,954</b>	<b>24,437</b>
Consumption as fuel—					
Electricity generation ..	6,941	7,131	7,398	7,420	7,869
Factories .. ..	2,991	3,122	3,166	3,103	2,844
Railway locomotives(b) ..	2,217	2,050	2,002	1,847	1,627
Bunker coal(c) .. ..	229	203	169	136	101
<b>Total .. ..</b>	<b>12,378</b>	<b>12,506</b>	<b>12,735</b>	<b>12,506</b>	<b>12,441</b>
Consumption as raw material—					
Gas works .. ..	1,779	1,761	1,744	1,726	1,634
Coke works .. ..	3,841	3,846	4,216	4,910	5,039
<b>Total .. ..</b>	<b>5,620</b>	<b>5,607</b>	<b>5,960</b>	<b>6,636</b>	<b>6,673</b>
Exports (oversea) .. ..	836	645	1,088	1,888	3,470
Mine washery refuse and dump losses(d) .. ..	496	660	982	1,072	1,341
Balance—unrecorded consumption, other purposes(e) ..	1,041	1,049	466	852	512
<b>Grand Total .. ..</b>	<b>20,371</b>	<b>20,467</b>	<b>21,231</b>	<b>22,954</b>	<b>24,437</b>

(a) Includes miners' and colliery coal. (b) Government railways only. (c) Figures refer only to New South Wales consumption by oversea, interstate and intrastate vessels. (d) Prior to 1959-60, figures refer only to New South Wales. Later figures include Tasmania. (e) Includes net change in stocks.

After the 1939-45 War, it was found necessary to augment local supplies of black coal in Australia by increasing imports. The quantity imported reached a post-war peak of 597,866 tons in 1950-51, but has since declined as production has expanded considerably. Since 1952-53, exports have exceeded imports by a wide margin; in 1961-62, exports of black coal were 3,469,552 tons and imports were 4,792 tons. These imports were of black coal only for special purposes.

(ii) *Brown Coal.* The table following shows the production and consumption of brown coal and the production of briquettes in Victoria for the years 1957-58 to 1961-62.

**BROWN COAL: PRODUCTION AND CONSUMPTION, VICTORIA**  
(<sup>'000</sup> Tons)

Particulars	1957-58	1958-59	1959-60	1960-61	1961-62
Production .. ..	10,866	12,243	14,101	15,723	16,729
Consumption as fuel—					
Electricity generation ..	7,830	9,289	10,498	9,970	10,981
Briquette factory .. ..					
Other factories .. ..					
<b>Total .. ..</b>	<b>1,297</b>	<b>1,293</b>	<b>1,248</b>	<b>951</b>	<b>860</b>
Consumption as raw material—					
Briquette manufacture ..	1,619	1,639	2,396	4,764	5,457
Balance(a) .. ..	+ 120	+ 22	- 41	+ 38	- 569
<b>Briquettes manufactured ..</b>	<b>626</b>	<b>643</b>	<b>975</b>	<b>1,807</b>	<b>1,820</b>

(a) The sign (+) indicates that the balance shown is available for other consumption and accumulation of stocks; the sign (-) indicates a reduction in stocks.

The State Electricity Commission of Victoria produces brown coal briquettes at Yallourn and Morwell, both situated on the brown coal deposits in Gippsland. The former commenced commercial production of briquettes in 1925, and initial output of the Morwell plant was in 1960. Output of briquettes (Yallourn and Morwell combined) was 1,806,619 tons in 1960-61, and 1,819,954 tons in 1961-62.

In December, 1956, the Lurgi high pressure brown coal gasification plant at Morwell was opened by the Gas and Fuel Corporation of Victoria. This plant operates on briquettes supplied by belt conveyor from the State Electricity Commission's Morwell works, and produces town gas which is sent to Melbourne through 103 miles of pipeline.

10. **Exports.**—The quantities and values of the overseas exports of Australian coal and of bunker coal for overseas vessels for the five years 1957-58 to 1961-62 are shown in the following table. These shipments were made mainly from New South Wales.

**COAL: OVERSEA EXPORTS AND BUNKER, AUSTRALIA**

Year	Oversea exports(a)		Bunker coal for overseas vessels	
	Quantity	Value	Quantity	Value
	Tons	£	Tons	£
1957-58 .. ..	836,336	3,390,628	11,608	50,656
1958-59 .. ..	645,249	2,676,042	8,187	37,808
1959-60 .. ..	1,087,844	4,326,810	8,117	25,380
1960-61 .. ..	1,888,415	7,682,223	179	1,716
1961-62 .. ..	3,469,552	13,611,122	37	410

(a) Excludes bunker coal.

New South Wales, in addition to meeting requirements within the State, supplies considerable quantities of coal to other States and for export overseas. Of the total of 19,083,000 tons produced in 1961-62, 1,315,000 tons (6.9 per cent.) were exported interstate and 3,180,000 tons (16.7 per cent.) were exported overseas. The demand for bunker coal continues to decline, and in 1961-62 a total of 101,000 tons (0.5 per cent.) of New South Wales production was supplied for interstate, intrastate and overseas vessels.

11. **Production in Principal Countries.**—The following table shows the production of coal in the principal countries and estimated world totals in 1960 and 1961.

**COAL: PRODUCTION IN PRINCIPAL COUNTRIES**

(Source: Division of Minerals, United States Bureau of Mines.)

('000 Tons)

Country	Black Coal		Brown Coal and Lignite	
	1960	1961	1960	1961
China .. ..	(a) 413,000	(a) 375,000	(b)	(b)
United States of America ..	385,343	372,684	2,452	2,695
U.S.S.R. .. ..	369,012	370,968	136,077	127,435
United Kingdom .. ..	193,606	190,466	..	..
Germany, Federal Republic of ..	140,992	141,348	94,620	95,661
Poland .. ..	102,789	104,923	9,179	10,175
India .. ..	(a) 51,848	(a) 55,243	(b)	(b)
Japan .. ..	50,261	53,620	1,386	1,279
France .. ..	55,076	51,531	2,240	2,860
South Africa .. ..	37,571	38,940	..	..
Czechoslovakia .. ..	25,800	25,774	57,481	64,271
Australia .. ..	22,569	24,006	14,967	16,279
Belgium .. ..	22,111	21,198	..	..
Spain .. ..	13,566	13,558	1,734	2,055
Netherlands .. ..	12,301	12,421	4	..
Korea (North) .. ..	(a) 10,452	(a) 11,604	(b)	(b)
Canada .. ..	7,893	7,312	1,938	1,972
Turkey .. ..	6,207	6,281	3,357	3,713
Korea (South) .. ..	5,266	5,791	..	..
Formosa .. ..	3,899	4,170	..	..
Hungary .. ..	2,802	3,024	23,302	24,707
New Zealand(c) .. ..	2,852	2,768	160	157
Germany, Eastern .. ..	2,678	2,634	221,840	232,666
Colombia .. ..	2,559	2,461	..	..
<i>Estimated World Total ..</i>	<i>1,962,639</i>	<i>1,919,493</i>	<i>628,496</i>	<i>647,339</i>

(a) Includes lignite.  
Department Report, 1961.

(b) Included with black coal.

(c) Source: New Zealand Mines

12. **Coke and Other By-products from Coal.**—(i) *Coke.* The production of metallurgical coke in Australia during 1961–62 was 2,716,894 tons, compared with the record production of 2,738,505 tons during 1960–61.

In addition to metallurgical coke referred to above (which is produced by specialized coke works), considerable quantities of coke are produced in gas works as a by-product of the manufacture of gas. Production in gas works in 1961–62 was 761,355 tons. To date, there has been no production of petroleum coke at Australian oil refineries.

In order to avoid duplication with coal values, the figures for coke have not been included in the general tables of mineral production in the early part of this chapter.

In the following table, particulars of the production of coke in coke works and gas works in Australia are shown for the years 1957–58 to 1961–62. The figures exclude output of coke breeze, which amounted to 376,123 tons in 1960–61 and 456,719 tons in 1961–62.

### COKE PRODUCTION: AUSTRALIA

(Tons)

Industry			1957–58	1958–59	1959–60	1960–61	1961–62
Coke works	..	..	2,295,737	2,210,621	2,376,097	2,738,505	2,716,894
Gas works	..	..	831,615	815,464	758,668	764,626	761,355
Total	..	..	3,127,352	3,026,085	3,134,765	3,503,131	3,478,249

(ii) *Other By-products from Coal.* In addition to coke, other products are obtained from the treatment of coal by coke and gas works. Some of the main items produced, principally in coke and gas works, during 1961–62 (1960–61 in parentheses) were: crude tar, 56,883,264 gallons (57,132,117 gallons); refined tar, 24,070,783 gallons (29,672,825 gallons); and ammonium sulphate, 105,754 tons (98,988 tons).

## § 13. Oil Exploration in Australia

1. **Introduction.**—A comprehensive survey of developments in the search for oil was presented on pages 1094–8 of Year Book No. 48. A summary of later developments is given below.

2. **Developments in 1962.**—The effort in the search for oil increased considerably during 1962, following the success obtained at the Moonie field in southern Queensland. The greatest concentration of effort in 1962 was in Queensland. The development of the Moonie field continued, and of the ten wells drilled to the end of 1962, nine were productive: in one well the sand was found to contain water. The field has proven to cover an area of at least eight square miles. In December, 1962, an encouraging show of oil was found in Sunnybank No. 1, which is about 90 miles northwest of Moonie. However, later testing of this well did not match early production rates. The same company also found gas at a depth of over 12,300 feet in Westgrove No. 3, about 100 miles north of Roma.

Although attention during 1962 has been focussed on Queensland, encouraging signs of oil and/or gas were also found near Grafton (Clifden No. 3) in New South Wales, and at North Seaspray No. 1 near Bairnsdale in south-east Victoria. Drilling in the Perth Basin of Western Australia has also yielded encouraging results.

During the year, a contract was let for the construction of a 10-inch pipe line from the Moonie field to Brisbane, a distance of nearly 200 miles. The cost of the line was estimated at about £5 million, and it is envisaged that the line will be in use by the end of 1963. The line will be a common carrier and oil from any other area can be fed into it.

During 1962, expenditure by private enterprise was of the order of £13.5 million, excluding Commonwealth subsidies totalling £2,965,400 paid under the *Petroleum Search Subsidy Acts*. In addition, £1,013,200 was spent by the Bureau of Mineral Resources on regional geological and geophysical surveys. The total expenditure to date by both government and private enterprise is of the order of £100 million. Further information regarding Government assistance in the search for oil is given in para. 3 (i) (d) on page 1142.

3. **Footage Drilled in the Search for Oil.**—The following table shows details of footage drilled in the search for oil in Australia, Papua and New Guinea during the years 1958 to 1962.

#### FOOTAGE DRILLED IN THE SEARCH FOR OIL

(Source: Bureau of Mineral Resources(a) )

(Feet)

State or Territory	1958	1959	1960	1961	1962
New South Wales .. ..	16,357	17,422	6,169	7,779	34,031
Victoria .. ..	2,439	8,395	14,682	22,439	42,635
Queensland .. ..	5,081	30,328	54,841	74,931	237,380
South Australia .. ..	6,239	12,637	..	8,945	40,836
Western Australia .. ..	30,383	36,020	17,193	13,712	38,400
Northern Territory .. ..	..	2,458	1,373	1,024	9,347
<b>Australia .. ..</b>	<b>60,499</b>	<b>107,260</b>	<b>94,258</b>	<b>128,830</b>	<b>402,629</b>
<b>Papua and New Guinea ..</b>	<b>29,350</b>	<b>13,389</b>	<b>10,042</b>	<b>..</b>	<b>5,947</b>

(a) Based on figures obtained from State Departments of Mines and the Northern Territory Mines Branch.

### § 14. Sulphur

1. **Mine Production.**—There is no production of elemental sulphur (brimstone) in Australia. However, while sulphur is itself non-metallic, considerable quantities are contained in certain metallic minerals produced. Large quantities of the lead and zinc concentrates produced are exported, and the sulphur they contain is not available for utilization in Australia.

The following table shows the sulphur content of the metallic minerals produced during 1961 from which sulphur was subsequently recovered.

#### SULPHUR: CONTENT OF METALLIC MINERALS PRODUCED, 1961

(Tons)

Mineral in which contained	N.S.W.	Q'land	S. Aust.	W. Aust.	Tas.	Australia
Lead concentrate..	42,667	..	..	(a) 84	2,531	45,282
Lead-copper concentrate ..	..	..	..	..	2,135	2,135
Pyrite concentrate	14,949	4,829	(a) 33,357	23,962	25,053	102,150
Zinc concentrate ..	137,043	(a) 15,686	..	..	22,570	175,299
<b>Total ..</b>	<b>194,659</b>	<b>(b) 20,515</b>	<b>(a) 33,357</b>	<b>24,046</b>	<b>52,289</b>	<b>324,866</b>

(a) Estimated.

(b) Partly estimated.

The principal producing centres during 1961 were as follows.

(i) *New South Wales.* All the sulphur produced was contained in lead and zinc concentrates produced at Broken Hill and in lead, zinc and pyrite concentrates produced at Captain's Flat.

(ii) *Queensland.* Sulphur was contained in zinc concentrate milled at Mount Isa and in pyrite concentrate produced at Mount Morgan. Zinc concentrate produced at Mount Isa was exported.

(iii) *South Australia.* A pyrite concentrate containing sulphur was produced from ore mined at Nairne, 22 miles east of Adelaide.

(iv) *Western Australia.* Sulphur was recovered from pyrite concentrates produced at Norseman and at Kalgoorlie.

(v) *Tasmania.* A pyrite concentrate was recovered at Mount Lyell after the separation of the copper sulphide mineral. Recoverable sulphur was contained also in lead, lead-copper and zinc concentrates milled at Rosebery, but only that contained in zinc concentrate was recovered in Australia.

The following table shows for the years 1957 to 1961 the sulphur content of minerals from which sulphur was recovered.

#### SULPHUR: CONTENT OF METALLIC MINERALS PRODUCED

(Tons)

State	1957	1958	1959	1960	1961
New South Wales .. ..	207,604	197,736	188,892	204,358	194,659
Queensland(a) .. ..	24,544	14,647	17,464	24,612	20,515
South Australia(b) .. ..	32,721	32,129	27,616	31,717	33,357
Western Australia .. ..	25,420	22,635	24,473	24,556	24,046
Tasmania .. ..	52,185	55,472	52,100	54,757	52,289
<b>Australia .. ..</b>	<b>342,474</b>	<b>322,619</b>	<b>310,545</b>	<b>340,000</b>	<b>324,866</b>

(a) Partly estimated.

(b) Estimated.

2. *Production of Sulphuric Acid.*—The principal use of sulphur is in the manufacture of sulphuric acid, which is produced in all States and in the Northern Territory. Most of this is used for fertilizer manufacture, although small quantities are used in the rubber and chemical industries and in the preparation of uranium concentrates. Sulphur contained in lead concentrate is used for acid manufacture at Port Pirie and sulphur in zinc concentrate is used at Risdon. In June, 1961, acid production from lead-zinc sinter gases commenced at Cockle Creek, near Newcastle, New South Wales. Pyrite concentrate is used as a source of sulphur for acid manufacture at Cockle Creek and at Port Kembla in New South Wales, and at Melbourne, Brisbane, Adelaide, Perth and Fremantle. However, about half the sulphuric acid produced in Australia is made from imported elemental sulphur. The next table shows, for the years 1958 to 1962, the Australian production of sulphuric acid and the quantity of sulphur in the acid produced from various sources.

## SULPHUR USED IN SULPHURIC ACID PRODUCTION: AUSTRALIA

(Tons)

Item	1958	1959	1960	1961	1962
Production of sulphuric acid (mono) .. .. .	1,009,064	1,000,458	1,109,751	1,137,501	1,229,256
Sulphur in sulphuric acid (mono) produced from—					
Sulphur (elemental)(a) ..	162,881	153,195	179,752	182,554	202,659
Zinc concentrate ..	38,524	39,933	42,946	52,423	65,342
Lead concentrate ..	21,339	19,619	21,573	22,440	20,247
Pyrite ..	99,216	103,596	104,406	100,520	97,927
Spent oxide ..	4,301	3,655	3,814	2,277	2,381
Other materials ..	3,702	7,151	10,396	11,749	13,410
<b>Total Sulphur Content</b>	<b>329,963</b>	<b>327,149</b>	<b>362,887</b>	<b>371,963</b>	<b>401,966</b>

(a) All imported.

## § 15. Non-metallic Minerals

1. **Asbestos.**—Production of asbestos has been confined mainly to crocidolite in Western Australia, principally at Wittenoom Gorge in the north-western part of the State. The only deposits of chrysotile, located mainly at Nunyerry in Western Australia and at Baryulgil in New South Wales, are relatively small and widely scattered.

The production of chrysotile and crocidolite in Australia during the five years 1957 to 1961 is shown in the following table.

## PRODUCTION OF ASBESTOS

(Short tons of 2,000 lb.)

Year	Chrysotile			Crocidolite
	New South Wales	Western Australia	Australia	Australia(a)
1957 .. .. .	676	1,556	2,232	12,438
1958 .. .. .	712	1,543	2,255	13,313
1959 .. .. .	726	707	1,433	16,442
1960 .. .. .	1,072	69	1,141	14,472
1961 .. .. .	794	175	969	15,777

(a) Produced in Western Australia.

2. **Clays.**—Statistics of clay production in Australia are not entirely satisfactory, mainly because of differences between States in the classification of the various types of clays. In addition, the statistics are incomplete, as some clays are outside the normal administrative control of some State Mines Departments. In the following table, the recorded production of the main types of clays produced in each State of Australia is shown for the year 1961.

### PRODUCTION OF CLAYS, 1961 (Tons)

Type	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
Bentonite and bentonitic clay ..			307		587		894
Brick clay and shale ..	2,005,679	1,089,000	299,594	311,257	484,996	153,156	4,343,682
Cement clay and shale ..	158,527	(b)	(b)	11,651	17,864	(b)	(c) 188,042
Damouritic clay ..				508			508
Fireclay, n.e.i. ..	113,055	25,584	11,587	25,576	26,384		202,186
Fuller's earth ..	151				41		192
Kaolin ..	37,866	9,016	60	2,142	772	1,232	51,088
Stoneware clay ..	107,614		2,135	46,829			156,578
Tile clay ..	144,555	(b)	(b)	(b)	(b)	6,075	(c) 150,630
Other clays ..	5,169	(a) 142,083	(b)	(b)	(b)	14,553	(c) 161,805

(a) Estimated.

(b) Not available.

(c) Incomplete.

3. **Gypsum.**—There are very extensive deposits of gypsum in Australia, but only the more accessible and easily worked deposits have been exploited. These deposits lie in four main regions, (a) in New South Wales stretching from around Griffith to near Broken Hill, (b) in the north-west corner of Victoria, the south-west corner of New South Wales and adjoining parts of South Australia, (c) in South Australia on both sides of St. Vincent Gulf and extending to Lake MacDonnell in the west, and (d) between Perth and Kalgoorlie in Western Australia. The South Australian deposits are the most important, and more than half the total Australian production of gypsum in 1961 came from that State, where the main centres of production are Stenhouse Bay on Yorke Peninsula and Lake MacDonnell.

The building industry is the main user of the gypsum produced in Australia. The greatest part is used in the manufacture of plaster and most of the remainder in cement manufacture. A small amount is also used as fertilizer. A considerable quantity is exported, mainly to New Zealand for use in the plaster industry. Substantial quantities of gypsum are also exported to Malaya and the Philippines.

The production of gypsum in Australia is set out in the following table for the five years 1957 to 1961.

### PRODUCTION OF GYPSUM (Tons)

Year	New South Wales	Victoria	South Australia	Western Australia	Australia
1957 .. ..	101,491	68,647	274,945	33,353	478,436
1958 .. ..	90,664	72,010	306,749	35,515	504,938
1959 .. ..	101,143	81,101	296,816	37,731	516,791
1960 .. ..	95,514	100,386	340,762	44,216	580,878
1961 .. ..	97,250	80,223	387,289	45,145	609,907

4. **Limestone.**—Limestone is quarried in all States, being used mainly for the manufacture of cement. Other uses are in agriculture, in the steel industry as a metallurgical flux, and in the chemical industry.

The recorded statistics of limestone production in each State of Australia are shown in the following table. Details of limestone produced for use as building or road material are not included.

### PRODUCTION OF LIMESTONE(a) (\*000 Tons)

Year	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	Aust.
1957 .. ..	1,897	846	(b)	1,135	(b)	205	4,572
1958 .. ..	2,061	859	(b)	1,220	(b)	235	5,324
1959 .. ..	2,056	1,120	(b)	1,017	(b)	230	5,305
1960 .. ..	2,400	1,157	(b)	1,064	(b)	215	5,669
1961 .. ..	2,576	1,243	(b)	1,105	(b)	204	6,146

(a) Includes shell and coral.

(b) Not available for publication, included in total for Australia.



5. **Magnesite.**—The major sources of magnesite at present are deposits at Fifield, Thuddungra and Lake Cargelligo in central New South Wales, and at Ravensthorpe in Western Australia. Production at Ravensthorpe is expected to increase substantially in the near future. Most of the output of magnesite in Australia is used for refractory purposes, particularly in the steel industry, and small amounts are used in chemical, paper, glass, rubber, and ceramic industries. Particulars of the production of magnesite in each State for the years 1957 to 1961 are set out in the table below.

#### PRODUCTION OF MAGNESITE

(Tons)

Year				New South Wales	Queensland	South Australia	Western Australia	Australia
1957	..	..	..	83,271	..	202	..	83,473
1958	..	..	..	69,030	20	341	..	69,391
1959	..	..	..	59,777	..	790	19	60,586
1960	..	..	..	61,668	..	498	..	62,166
1961	..	..	..	88,511	..	659	9,625	98,795

6. **Mica.**—Production during 1961 was confined to the Northern Territory, where 185,920 tons of crude and film mica were produced during the year. Mining in the Northern Territory came to a standstill in 1962, and the Commonwealth Mica Pool has ceased operations.

The following table shows the quantity of muscovite mica produced in Australia during the five years 1957 to 1961.

#### MUSCOVITE MICA PRODUCTION

(lb.)

Particulars				1957	1958	1959	1960	1961
New South Wales—								
Scrap	..	..	..	..	15,680	7,000	..	..
Queensland—								
Scrap	..	..	..	..	21,728	..	..	..
Northern Territory—								
Trimmed	..	..	..	36,713	42,479	44,665	9,500	..
Crude and film	..	..	..	..	35,840	170,000	649,600	185,920
Scrap	..	..	..	40,600	..	..	..	..

7. **Salt.**—Salt is obtained in Australia by evaporation of saline lakes and clay pans. Production satisfies local requirements and provides a considerable surplus for export. Recorded production in South Australia (the chief producing State) is shown in the following table for the years 1957 to 1961. Estimates of total Australian production are also shown.

#### SALT PRODUCTION

('000 Tons)

Particulars				1957	1958	1959	1960	1961
South Australia				339	336	358	359	387
Estimated Australian total				428	430	468	463	509

8. **Other Non-metallic Minerals.**—(i) *General.* Many other non-metallic minerals are produced in Australia in considerable quantities, and are listed separately in the following paragraphs.

(ii) *Barite.* The principal centre producing first-grade barite is at Oraparinna in the North Flinders Range in South Australia. The production of barite in Australia during 1961 was 19,217 tons, of which 19,157 tons came from South Australia and 60 tons from New South Wales.

(iii) *Diatomite.* Production of diatomite is carried on mainly in the eastern States of Australia. In 1961, 5,417 tons were produced, of which New South Wales produced 4,331 tons, mainly at Coonabarabran and Barraba. The remaining 1,086 tons were produced in Queensland (579 tons) and Victoria (507 tons).

(iv) *Dolomite.* In 1961, South Australia continued to supply the bulk of the requirements of the iron and steel industry from quarries at Ardrossan. During the year, production in the various States was South Australia, 183,214 tons; New South Wales, 4,796 tons; Queensland, 2,132 tons; Tasmania, 1,108 tons; and Western Australia, 374 tons; making an Australian total of 191,624 tons.

(v) *Felspar.* The main demand for felspar comes from the glass and ceramic industries. Most of the Australian production of felspar comes from New South Wales, which produced 5,378 tons of the Australian total of 8,209 tons in 1961. Of the remainder, 1,641 tons came from South Australia and 1,190 tons from Western Australia.

(vi) *Gemstones.* (a) *Opals.* Most of the opals won in recent years came from the Coober Pedy and Andamooka fields in South Australia, which produced opals worth £765,000 in 1961. Other production in 1961 was from Lightning Ridge in New South Wales, valued at £65,000.

(b) *Sapphires.* In 1961, sapphires produced in the Inverell District of New South Wales were valued at £3,000 and production from the Anakie field in Central Queensland was valued at £5,000.

(vii) *Phosphate Rock.* During 1961, 4,874 tons of phosphate rock were produced, of which 4,759 tons came from South Australia and the remaining 115 tons from Western Australia. In the course of a search for deposits of uranium ore near Rum Jungle in 1961, the Bureau of Mineral Resources discovered phosphate rock deposits in the area. A programme was conducted in 1962 to make a preliminary assessment of the extent and grade of the new deposits.

(viii) *Silica.* The production of silica is not recorded in Victoria and production recorded in all other States may not be complete. The output of silica, which includes glass sand, quartz, quartzite, sand, sandstone, and silicious abrasives, but does not include production for use as building or road material, was 150,891 tons in New South Wales; 29,226 tons in Queensland; 22,769 tons in South Australia; 8,274 tons in Western Australia; and 1,415 tons in Tasmania; making a total of 212,575 tons recorded for those States during 1961.

(ix) *Sillimanite.* In 1961, 1,787 tons of sillimanite were produced in Australia, 1,533 tons of which came from South Australia and 254 tons from New South Wales.

(x) *Talc.* The Australian output of talc (including steatite) was 13,545 tons in 1961, South Australia produced 7,571 tons, Western Australia 5,149 tons, and New South Wales 825 tons.

(xi) *Other.* Other non-metallic minerals produced in Australia in small quantities during 1961 were fluorspar, garnet concentrate, foundry loam, lithium ores, mineral pigments, pebbles for grinding, perlite, pyrophyllite, rhodonite and serpentine.

## § 16. Value of Production

1. **Local Value of Mining and Quarrying Production, 1961.**—The following table shows particulars of the local value of production for individual mining industry groups and quarrying for the year 1961. It should be stressed that these statistics are on an industry basis and not by product. For particulars of the method of compiling these industry statistics, see para. 2 (i), pages 1144–5. A more detailed reference to the value of production of mining and quarrying and other industries together with a brief explanation of terms used will be found in Chapter XXIX. Miscellaneous.

## MINING AND QUARRYING: LOCAL VALUE OF PRODUCTION(a), 1961

(£'000)

Industry	N.S.W.	Vic.	Q land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<b>Metal mining—</b>									
Gold mining ..	12	470	(b)	1	14,311	(b)	917	..	15,952
Lead-silver-zinc mining ..	17,706	..	(b)	1	24	(b)	1	..	35,633
Copper-gold mining ..	19	2	(b)	1	458	(b)	2,041	..	8,051
Tin mining ..	170	..	1,370	..	233	1,163	4	..	2,940
Mineral sands mining ..	2,933	..	1,588	..	644	..	..	..	5,165
Other metal mining ..	95	19	(b)	5,177	2,122	(b)	12	..	8,348
<b>Total, Metal Mining</b>	<b>20,935</b>	<b>491</b>	<b>22,207</b>	<b>5,180</b>	<b>17,792</b>	<b>6,509</b>	<b>2,975</b>	<b>..</b>	<b>76,089</b>
<b>Fuel mining—</b>									
Black coal mining ..	45,112	359	8,008	1,338	1,680	584	..	..	57,081
Brown coal mining ..	..	7,722	..	..	..	..	..	..	7,722
<b>Total, Fuel Mining ..</b>	<b>45,112</b>	<b>8,081</b>	<b>8,008</b>	<b>1,338</b>	<b>1,680</b>	<b>584</b>	<b>..</b>	<b>..</b>	<b>64,803</b>
<b>Non-metal (excluding fuel) mining—</b>									
Clays(c) ..	1,098	993	107	283	157	49	..	..	2,687
Gypsum ..	199	80	..	457	30	..	..	..	766
Limestone ..	1,296	594	(b)	756	(b)	212	(d)	..	3,609
Salt(c) ..	..	(b)	(b)	775	(b)	..	11	..	999
Other non-metal (excluding fuel) mining ..	765	(b)	(b)	1,110	1,487	5	1	..	3,433
<b>Total, Non-metal (excluding Fuel) Mining</b>	<b>3,358</b>	<b>1,794</b>	<b>866</b>	<b>3,381</b>	<b>1,817</b>	<b>266</b>	<b>12</b>	<b>..</b>	<b>11,494</b>
<b>Total, All Mining ..</b>	<b>69,405</b>	<b>10,366</b>	<b>31,081</b>	<b>9,899</b>	<b>21,289</b>	<b>7,359</b>	<b>2,987</b>	<b>..</b>	<b>152,386</b>
<b>Construction material quarrying(c) ..</b>	<b>8,766</b>	<b>10,888</b>	<b>1,139</b>	<b>6,013</b>	<b>1,207</b>	<b>600(e)</b>	<b>379</b>	<b>(f)</b>	<b>28,992</b>
<b>Total, All Mining and Quarrying ..</b>	<b>78,171</b>	<b>21,254</b>	<b>32,220</b>	<b>15,912</b>	<b>22,496</b>	<b>7,959</b>	<b>(e) 3,366</b>	<b>(f)</b>	<b>181,378</b>

(a) Value of output or selling value of products at the mine or quarry. (b) Not available for publication. (c) Incomplete. (d) Less than £500. (e) Includes Australian Capital Territory. (f) Not available for publication; included with Northern Territory.

2. Local Values, 1957 to 1961.—In the following table, the local value of mining and quarrying production is shown by States and Territories.

## MINING AND QUARRYING: LOCAL VALUE OF PRODUCTION(a)

(£'000)

Year	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.(b)	Aust.
1957 ..	83,170	12,728	25,576	11,872	20,979	8,421	2,365	165,111
1958 ..	71,414	13,694	27,632	12,308	20,777	7,358	2,772	155,955
1959 ..	71,090	14,935	33,329	13,209	21,787	7,639	2,996	164,985
1960 ..	79,641	16,267	37,608	13,952	22,166	8,067	3,539	181,240
1961 ..	78,171	c 21,254	32,220	15,912	22,496	7,959	3,366	181,378

(a) Value of output or selling value of products at the mine or quarry. (b) Includes Australian Capital Territory. (c) Not strictly comparable with previous years owing to extension of coverage of quarrying activities.

3. Net Value of Mining and Quarrying Production.—The following table shows particulars of net value of production for individual mining industry groups and construction material quarrying for the year 1961.

## MINING AND QUARRYING: NET VALUE OF PRODUCTION(a), 1961

(£'000)

Industry	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining—									
Gold mining ..	11	304	(b)	(b)	9,662	(b)	808	..	10,973
Lead-silver-zinc mining ..	12,337	..	(b)	(b)	9	(b)	(c) 1	..	d 25,330
Copper-gold mining ..	(e) -89	1	(b)	(b)	237	(b)	1,698	..	4,548
Tin mining ..	148	..	(b)	..	153	(b)	1	..	2,339
Mineral sands mining ..	2,028	..	(b)	..	(b)	..	..	..	3,368
Other metal mining ..	82	18	(b)	(b)	1,701	(b)	(c) 12	..	(d) 7,090
<i>Total, Metal Mining</i>	<i>14,517</i>	<i>323</i>	<i>15,403</i>	<i>(b)</i>	<i>(b)</i>	<i>4,104</i>	<i>2,520</i>	<i>..</i>	<i>53,648</i>
Fuel mining—									
Black coal mining ..	34,784	241	6,704	(b)	(b)	464	..	..	44,672
Brown coal mining ..	..	7,100	..	..	..	..	..	..	7,100
<i>Total, Fuel Mining ..</i>	<i>34,784</i>	<i>7,341</i>	<i>6,704</i>	<i>(b)</i>	<i>(b)</i>	<i>464</i>	<i>..</i>	<i>..</i>	<i>51,772</i>
Non-metal (excluding fuel) mining—									
Clays(f) ..	885	936	(c) 107	251	110	42	..	..	(d) 2,331
Gypsum ..	163	61	(b)	(b)	(b)	..	..	..	614
Limestone ..	940	367	(b)	622	(b)	(b)	(g)	..	2,531
Salt(f) ..	..	(b)	(b)	(b)	(b)	..	(c) 11	..	(d) 849
Other non-metal (excluding fuel) mining ..	629	(b)	(b)	1,063	(b)	(b)	(c) 1	..	2,661
<i>Total, Non-metal (excluding Fuel) Mining ..</i>	<i>2,617</i>	<i>1,491</i>	<i>591</i>	<i>2,948</i>	<i>1,155</i>	<i>172</i>	<i>12</i>	<i>..</i>	<i>8,986</i>
<i>Total, All Mining ..</i>	<i>51,918</i>	<i>9,155</i>	<i>22,698</i>	<i>8,669</i>	<i>14,694</i>	<i>4,740</i>	<i>2,532</i>	<i>..</i>	<i>114,406</i>
Construction material quarrying(f) ..	(r) 8,766	8,131	736	4,434	859	463	(h) 257	(i)	d 23,646
<i>Total, All Mining and Quarrying ..</i>	<i>60,684</i>	<i>17,286</i>	<i>23,434</i>	<i>13,103</i>	<i>15,553</i>	<i>5,203</i>	<i>(h) 2,789</i>	<i>(i)</i>	<i>138,052</i>

(a) Local value (i.e. value of output at mine) less cost of power, fuel, light and other materials and stores used; depreciation and maintenance costs have not been deducted. (b) Not available for publication. (c) No allowance has been made for costs of power, fuel, light and other materials and stores used, particulars of which are not available. (d) See footnote (c). (e) Cost of materials used, etc., exceeded value of output. (f) Incomplete. (g) Less than £500.

(h) Includes Australian Capital Territory. (i) Not available for publication; included with Northern Territory.

4. Net Value of Production, 1957 to 1961.—In the following table, the net value of mining and quarrying production and the value per head of population are shown by States and Territories.

## MINING AND QUARRYING: NET VALUE OF PRODUCTION(a)

Year	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T. and A.C.T.	Aust.
NET VALUE OF PRODUCTION(a) (£'000)								
1957 ..	66,091	9,944	18,810	9,320	14,889	5,897	1,851	126,802
1958 ..	55,801	10,987	19,796	9,999	14,454	5,168	2,131	118,336
1959 ..	56,331	12,101	24,481	10,698	14,765	5,398	2,381	126,155
1960 ..	63,214	13,158	27,460	11,404	15,444	5,476	2,871	139,027
1961 ..	60,684	(b)17,286	23,434	13,103	15,553	5,203	2,789	138,052

NET VALUE OF PRODUCTION(a) PER HEAD OF POPULATION  
(£)

1957 ..	18.2	3.7	13.2	10.5	21.5	17.8	30.6	13.0
1958 ..	15.0	4.0	13.6	11.0	20.5	15.3	32.3	11.9
1959 ..	14.8	4.3	16.6	11.5	20.6	15.7	31.9	12.4
1960 ..	16.3	4.5	18.3	11.9	21.2	15.6	35.5	13.4
1961 ..	15.4	(b) 5.9	15.4	13.4	20.9	14.6	31.4	13.0

(a) Local value, or value of output, less cost of power, fuel, light and other materials and stores used; depreciation and maintenance costs have not been deducted. (b) Not strictly comparable with previous years owing to extension of coverage of quarrying activities.

5. Local Value of Minerals Produced, 1957 to 1961.—Particulars of the estimated values of minerals (mine and quarry products) produced are shown in the following table. The values represent the estimated selling value at the mine or quarry of minerals produced during the years concerned.

LOCAL VALUE OF MINERALS PRODUCED: AUSTRALIA  
(£'000)

Mineral	1957	1958	1959	1960	1961
METALLIC MINERALS					
Copper ore, concentrate, etc.(a) ..	12,345	14,770	21,165	25,439	21,249
Gold ore, concentrate, other forms, etc. ..	16,090	16,251	15,853	15,870	15,859
Iron ore ..	(b) 4,295	(b) 4,393	4,633	4,844	5,899
Lead and lead-silver ore and concentrate, lead-copper concentrate, etc.(a) ..	28,810	22,493	21,477	20,396	16,933
Manganese ore ..	589	460	626	329	427
Pyritic concentrate ..	1,166	1,112	1,068	1,136	1,252
Rutile concentrate ..	8,577	4,524	3,838	3,639	3,314
Tin concentrate ..	1,612	1,739	2,043	1,940	2,786
Tungsten concentrates ..	2,167	871	410	940	1,033
Zinc ore and concentrate ..	3,655	2,565	4,888	7,730	5,295
Zircon concentrate ..	854	487	1,008	972	1,267
Other metallic minerals ..	602	525	512	575	769
<i>Total, Metallic Minerals</i> ..	<i>80,762</i>	<i>70,190</i>	<i>77,521</i>	<i>83,810</i>	<i>76,083</i>
FUEL MINERALS					
Coal, black ..	52,279	51,658	49,211	55,201	57,081
Coal, brown ..	5,228	5,418	6,123	6,845	7,722
<i>Total, Fuel Minerals</i> ..	<i>57,507</i>	<i>57,076</i>	<i>55,334</i>	<i>62,046</i>	<i>64,803</i>
NON-METALLIC (EXCLUDING FUEL) MINERALS					
<i>Total, Non-metallic (excluding Fuel) Minerals</i> ..	<i>(c) 9,002</i>	<i>(c) 10,192</i>	<i>(c) 10,533</i>	<i>10,843</i>	<i>11,494</i>

NOTE.—See next page for footnotes.

**LOCAL VALUE OF MINERALS PRODUCED: AUSTRALIA—continued.**  
(£'000)

Mineral	1957	1958	1959	1960	1961
<b>CONSTRUCTION MATERIALS(d)</b>					
Total, Construction Materials .. ..	17,840	18,497	21,597	24,541	(e) 28,998
<b>TOTAL</b>					
Total, All Minerals and Construction Materials(d) .. ..	165,111	155,955	164,985	181,240	181,378

(a) In 1957, the value of lead-copper concentrate was included with copper ore, concentrate, etc.  
 (b) Includes the value of iron oxide for fluxing. (c) Excludes Australian Capital Territory, details of which are included with construction materials. (d) Incomplete owing to difficulties of coverage.  
 (e) Not strictly comparable with previous years, owing to extension of coverage in Victoria.

NOTE.—Particulars of the value of uranium concentrate produced are not available for publication and have been excluded from the table above.

Owing to the necessity of classifying individual mines according to the principal mineral produced, the values in the tables on pages 1192 and for mining industry groups differ slightly in some cases from totals of the corresponding groups of mine products shown in the table above.

## § 17. Oversea Trade in Minerals and Mineral Products

Particulars of the quantity and value (£A. f.o.b. port of shipment) of the principal mineral and mineral product items imported into and exported from Australia during the years 1959 to 1961 are shown in the following table.

### IMPORTS AND EXPORTS OF PRINCIPAL MINERALS AND MINERAL PRODUCTS: AUSTRALIA

Item	Unit of quantity	Quantity			Value (£A.'000 f.o.b.)		
		1959	1960	1961	1959	1960	1961
IMPORTS							
Aluminium, refined—							
Ingots .. ..	ton	19,268	26,432	16,141	3,883	6,448	3,883
Plates, sheets and strips .. ..	"	2,555	5,770	1,953	1,068	2,432	802
Foil .. ..	"	2,788	3,909	2,002	1,803	2,560	1,343
Asbestos .. ..	short ton	38,330	41,002	36,901	2,502	2,508	2,310
Gold, unrefined bullion(a) .. ..	fine oz.	136,674	144,029	146,420	2,136	2,238	2,283
Iron and steel—							
Iron ore .. ..	ton	261,904	278,502	270,422	303	310	321
Ferro-alloys .. ..	"	23,989	41,612	54,369	1,859	3,391	4,018
Tinplate .. ..	"	50,348	63,741	38,355	4,774	6,039	3,661
Petroleum oils—							
Crude .. ..	'000 gals.	2,603,377	2,705,989	2,833,256	69,347	67,743	66,630
Enriched crude .. ..	"	35,559	237,336	404,863	802	6,923	11,831
Kerosenes .. ..	"	109,649	102,965	111,199	6,002	5,368	5,688
Lubricating oil .. ..	"	49,619	49,837	55,866	6,582	6,809	7,337
Gasolenes and solvents .. ..	"	243,910	238,208	191,728	13,228	13,247	10,353
Phosphate rock .. ..	'000 tons	1,327	1,491	1,766	3,689	4,075	4,768
Sulphur .. ..	ton	170,770	221,778	182,052	1,855	2,285	1,920
Titanium oxide (pigments) .. ..	"	5,472	5,054	5,139	1,016	971	1,017

NOTE.—See next page for footnotes.

**IMPORTS AND EXPORTS OF PRINCIPAL MINERALS AND MINERAL  
PRODUCTS: AUSTRALIA—continued**

Item	Unit of quantity	Quantity			Value (£A.'000 f.o.b.)		
		1959	1960	1961	1959	1960	1961
EXPORTS(b)							
Asbestos .. ..	short ton	12,974	8,299	8,060	1,225	784	800
Coal .. ..	ton	794,190	1,577,140	2,850,307	3,178	6,327	11,505
Copper, blister .. ..	"	16,225	502	1,022	4,375	162	395
Gold, refined .. ..	fine oz.	128,052	2,513,583	1,099,701	2,007	39,275	17,265
Iron and steel—							
Iron ore .. ..	ton	293	10	43	1	(c)	(c)
Pig iron .. ..	"	44,038	99,847	296,050	963	2,199	6,588
Ingots, blooms and slabs ..	"	12,061	9,619	86,860	397	380	3,102
Tinplate .. ..	"	1,671	8,080	16,644	134	699	1,338
Scrap .. ..	"	182,985	205,747	223,320	3,404	3,431	3,957
Lead—							
Ore and concentrate(d) ..	"	90,797	74,696	86,268	5,034	4,172	4,590
Lead-silver bullion .. ..	"	53,021	49,653	46,089	5,498	5,268	4,476
Pig .. ..	"	138,448	125,265	145,174	12,025	10,970	11,382
Petroleum oils—							
Gasolenes and solvents ..	'000 gals.	32,682	37,312	63,233	2,140	2,586	3,639
Automotive distillate ..	"	93,008	179,490	140,331	5,305	10,232	6,855
Residuals and heavy distil- lates .. ..	"	146,869	175,330	238,318	6,484	7,346	8,096
Rutile concentrate .. ..	ton	80,938	93,706	99,652	3,609	4,064	3,207
Silver, refined .. ..	'000 fine oz.	3,001	2,800	1,055	1,224	1,150	437
Zinc—							
Ore and concentrate ..	ton	193,254	321,930	276,109	2,472	5,395	5,056
Refinery type shapes ..	"	41,606	27,443	46,472	3,962	3,066	4,482

(a) Includes gold contained in matte. (b) Includes re-exports. (c) Less than £500.  
(d) Includes lead-copper concentrate.

Considerable quantities of metallic ores, concentrates, slags and residues are exported from Australia for refining overseas. The following table shows the quantities of such items exported during 1961 and their principal metallic content as estimated by assay.

**PRINCIPAL METALLIC CONTENTS OF SPECIFIED ORES AND CONCENTRATES,  
ETC., EXPORTED FROM AUSTRALIA DURING 1961**

Ores and concentrates, etc.	Quantity exported	Metallic contents—estimated from assay						
		Copper	Gold	Lead	Silver	Tin	Tungstic oxide	Zinc
	tons	tons	fine oz.	tons	fine oz.	tons	tons	tons
Copper—								
Ore and concentrate ..	107,234	26,342	16,923	..	395,458	1	..	..
Copper-lead dross and speiss ..	3,286	495	..	2,286	180,785	..	..	..
Other slags and residues ..	671	150	..	..	..	..	..	..
Blister .. ..	1,022	1,014	3,415	..	7,280	..	..	..
Lead—								
Ore and concentrate(a) ..	86,268	955	19,489	56,764	2,197,118	..	..	6,593
Slags and residues ..	1,575	22	8	699	2,368	33	..	83
Lead-silver bullion ..	46,089	3	..	45,767	3,593,740	..	..	..
Tungsten—								
Scheelite ore and concentrate ..	940	..	..	..	..	..	701	..
Wolfram ore and concentrate ..	1,046	..	..	..	..	..	761	..
Zinc—								
Ore and concentrate ..	276,109	..	..	2,064	83,655	..	..	143,437
Slags and residues ..	7,782	44	..	..	..	..	..	5,176
<b>Total Metallic Contents ..</b>	<b>..</b>	<b>29,025</b>	<b>39,835</b>	<b>107,580</b>	<b>6,460,404</b>	<b>34</b>	<b>1,462</b>	<b>155,289</b>

(a) Includes lead-copper concentrate.

## CHAPTER XXVI

### DEFENCE

#### § 1. Department of Defence

1. **Functions and Organization.**—(i) *Functions.* The functions of the Department of Defence include:—defence policy; joint Service matters and matters having an inter-departmental defence aspect; the financial requirements of defence policy and the allocation of the funds made available; the supply aspect of defence policy including the review of production programmes and capacity; important matters of policy or principle affecting the Defence Forces and their requirements, including the strength, organization and disposition of the forces, higher appointments in the Services, their weapons and equipment, and defence research and development.

(ii) *Organization, higher Defence machinery and the control of the joint Service machinery.* The joint Service and inter-departmental advisory machinery of the Department consists of various committees headed by the Defence Committee, the Chiefs of Staff Committee, the Defence Administration Committee and the Joint War Production Committee.

The Defence Committee is a statutory body consisting of the Secretary, Department of Defence, who is Chairman; the Chairman of the Chiefs of Staff Committee; the Chiefs of Staff of the three Services; the Secretary, Prime Minister's Department; the Secretary, Department of External Affairs; and the Secretary to the Treasury. Its function is to advise the Minister for Defence on—the defence policy as a whole and the co-ordination of military, strategic, economic, financial and external affairs aspects of defence policy; matters of policy or principle and important questions having a joint Service or an inter-departmental defence aspect; and such other matters having a defence aspect as are referred to the Committee by or on behalf of the Minister for Defence.

The Chiefs of Staff Committee meets regularly for the discussion of technical matters on a joint service basis, and is responsible in peace for the preparation of military appreciations and plans. The functions of the Defence Administration Committee are the regular review of the progress of the Defence Programme, the co-ordination or integration of Service activities where appropriate in the interests of improved efficiency and economy and the improvement of methods and organization. The function of the Joint War Production Committee is, briefly, to examine the relation between strategic plans and their requirements to ensure the war potential for them exists. The major committees subordinate to the Defence Committee and/or the Chiefs of Staff Committee comprise the Principal Administrative Officers Committee (Maintenance and *Materiel*), the Principal Administrative Officers Committee (Personnel), the Defence Research and Development Policy Committee, the Joint Planning Committee, the Joint Intelligence Committee and the Joint Administrative Planning Committee.

In addition, the Defence Business Board furnishes advice on business matters of common interest to the three Services, or important subjects on which the collective advice of the Board is desired from the business aspect, with a view to promoting efficiency and economy in the execution of the Defence Programme. The Board comprises businessmen who serve in a part-time honorary capacity and consists of an independent chairman and deputy chairman and the business advisers of the three Service Departments.

2. **Basis of Current Defence Policy.**—The basic aim of Australia's defence policy is to ensure the security of Australia's mainland and its island territories. This aim requires Australian participation in a policy of collective defence in south-east Asia which is the area of primary defence interest to Australia. Australia is party to the various collective security arrangements which have been developed in the area—SEATO, ANZUS and British Commonwealth arrangements for defence co-operation (*see also* Chapter XXVIII. International Relations).



Global war as a deliberate act of policy is considered unlikely, and the main aim of Australia's defence preparations is continually to improve the capability of its forces to make a prompt and effective contribution to any allied effort required in a limited war or insurgency situation in south-east Asia, while at the same time having a capacity for independent action to meet the initial shock of an emergency.

**3. The Defence Programme.—(i) Objectives.** The defence programme must be maintained at a level that will enable Australia to meet its regional and home defence responsibilities. In the present strategic circumstances, emphasis is placed on progressively increasing our military capacity and preparedness by having both regular and citizen forces more readily available, and improving their means of strategic and tactical mobility. The forces are also being extensively re-equipped with modern conventional weapons which are standard or compatible as far as possible with those used by United States forces with whom Australia is associated in defence arrangements.

The naval programme provides for the continuing modernization and development of the Royal Australian Navy into a well-balanced operational fleet with emphasis on anti-submarine and air defence capability. Three modern guided missile destroyers of the *Charles F. Adams* type are being obtained from the United States, and the first two will be delivered in 1965. Four *Oberon* class submarines are being purchased to replace the submarines which have been maintained on the Australia station for some years by arrangement with the Royal Navy. The Carrier H.M.A.S. *Melbourne* will continue in full service with its Gannet and Venom aircraft until they reach the end of their service life, which is expected to be about 1967. These aircraft are to be used in conjunction with Westland Wessex helicopters already under delivery. Three Type 12 anti-submarine frigates incorporating the most advanced equipment for detecting and destroying submarines are in commission, and a fourth will be completed next year; these ships and the guided missile destroyers will be fitted with the Ikara anti-submarine missile which is being developed in Australia with United States co-operation. The R.A.N. also has in commission three Daring class destroyers, two battle class destroyers, six "Ton" class minesweepers, the fast transport H.M.A.S. *Sydney*, and the fleet replenishment ship H.M.A.S. *Supply*. A new survey ship is under construction in Australia and a 15,000 ton maintenance ship will also be built in Australia. The present target strength of the R.A.N. is about 14,300.

The Army plans to increase the strength of the Regular operational force and of the Citizen Military Forces which are available for service anywhere. Regular Army strength is to be increased to 28,000, including a third regular battle group, and the target strength of the Citizen Military Forces has been increased to 35,000. The Pacific Island Regiment in Australian New Guinea will be doubled to 1,400 as soon as possible. The combat elements of the Army are based on the pentropic divisional organization, and the approved objective in the equipment field is to provide the equipment and reserves needed by the Regular Army and Citizen Military Forces components of a complete pentropic division of five battle groups with appropriate combat support and logistic units. The tactical flexibility and mobility of the field force is being greatly improved by the acquisition of landing ships, light aircraft and helicopters for the Army light aircraft squadron, and also utility helicopters and short take-off and landing fixed-wing aircraft in the R.A.A.F. programme.

The Air Force is an operational force consisting of three bomber squadrons, four fighter squadrons, two maritime reconnaissance squadrons and three transport squadrons. The fighter squadrons are being re-equipped with the advanced supersonic jet fighter, the Mirage III, of which 100 are now on order. Air frames and engines are being manufactured to a substantial extent in Australia. Two new control and reporting units are being purchased, and in the field of tactical air transport support, 24 utility helicopters are being obtained and 18 Caribou fixed wing aircraft which have a proved capability as a short take-off and landing aircraft in south-east Asian conditions. In addition to the current programme of airfield construction, extensions, and installations at Australian airfields, major improvements are to be effected at Boram near Wewak in New Guinea. The present target strength of the Air Force is of the order of 18,300.

In the field of research and development, Australia is making its principal contribution through the long-range weapons establishment at Woomera and Salisbury in South Australia, which is a joint United Kingdom/Australian effort for the testing of guided weapons. The executive authority for this project is the Department of Supply. Woomera is also to be used for European Launcher Development Organization.

**(ii) Financial.** Details of defence expenditure for 1961-62, and the allocation of the Defence Vote for 1962-63 are set out in the two tables which follow.

**DEFENCE EXPENDITURE**  
(£'000)

Service or Department	Maintenance	Capital material requirements, machinery, plant and equipment	Capital buildings, works and acquisition of sites	Total expenditure
<b>DEFENCE EXPENDITURE, 1961-62</b>				
Defence .. .. .	1,346	88	226	1,660
Navy .. .. .	35,223	10,987	1,534	47,774
Army .. .. .	51,670	10,429	3,058	65,157
Air .. .. .	46,912	14,350	3,945	65,207
Supply .. .. .	16,174	2,855	2,615	21,644
Other Services .. .. .	1,171	109	386	1,666
<b>Total .. .. .</b>	<b>152,496</b>	<b>38,818</b>	<b>11,764</b>	<b>203,078</b>

<b>DEFENCE VOTE, 1962-63</b>				
Defence .. .. .	1,617	1,049	107	2,771
Navy .. .. .	32,653	15,265	1,482	49,400
Army .. .. .	54,426	10,525	3,549	68,500
Air .. .. .	48,244	15,131	3,825	67,200
Supply .. .. .	16,501	4,045	2,454	23,000
Other Services .. .. .	1,578	210	41	1,829
<b>Total .. .. .</b>	<b>155,019</b>	<b>46,223</b>	<b>11,458</b>	<b>212,700</b>

(iii) *Personnel Strengths.* The personnel strengths of the Services at 31st March, 1963, are shown in the following table.

**PERSONNEL STRENGTHS: SERVICES, MARCH, 1963**

Category	Navy	Army	Air Force	Total
Permanent Forces .. .. .	11,650	22,412	15,827	49,889
Citizen Forces (Volunteers) .. .. .	5,650	28,614	711	34,975
<b>Total Forces .. .. .</b>	<b>17,300</b>	<b>51,026</b>	<b>16,538</b>	<b>84,864</b>

4. **Australian Forces Serving Overseas.**—Australia has participated with the United Kingdom and New Zealand in the Commonwealth Strategic Reserve in Malaya since it was first established in 1955. The strength of the Australian component of the Reserve is as follows:—Navy—two destroyers or frigates, with an annual visit by an aircraft carrier; Army—one infantry battalion and supporting units; Air Force—one light bomber squadron, two fighter squadrons and supporting units. At the request of the Government of the Federation of Malaya, the Strategic Reserve continues to be stationed in that country and to assist in border security operations against the communist terrorists.

Australia has also recently deployed to Thailand, at the invitation of the Government of Thailand, a contingent of Sabre fighter aircraft in pursuance of its obligations under the SEATO Treaty. A small number of Army instructors has also been provided, at the invitation of the Government of South Vietnam, to assist that country in training for jungle warfare, village defence and other related activities.

## § 2. Naval Defence

1. **General.**—Prior to 1901, naval defence systems were organized under the State Governments. Information regarding these systems is given in Official Year Book No. 2, page 1084. An outline of the development of Australian naval policy is given in Official Year Books No. 3, page 1060, and No. 12, page 1012. An account of the building of the Australian Navy, its cost, the compact with the Imperial Government, and other details appears in Official Year Book No. 15, pages 921–3. The growth and the activities of the Royal Australian Navy during the 1939–45 War are shown in Official Year Book No. 36, pages 1023–7.

Under the provisions of the Commonwealth Constitution, the Minister of State for the Navy administers the Department of the Navy. Under the *Naval Defence Act 1910–1952*, the Royal Australian Navy is administered by the Naval Board. The Naval Board consists of the Minister as Chairman, four Naval Members, and the Secretary, Department of the Navy.

Strong links between the Royal Australian Navy and the Royal Navy are maintained by a constant exchange of officers for extended tours of duty, and by a full exchange of information and ideas. A liaison staff is maintained by the Royal Australian Navy in London, and by the Royal Navy in Australia. Advanced training and staff courses in the United Kingdom are provided by the Royal Navy for Royal Australian Navy officers.

A liaison staff is also maintained by the Royal Australian Navy in Washington and a comprehensive exchange of information is provided by this link. Staff courses in the United States are also attended by officers of the Royal Australian Navy.

The defined limits of the Australia Naval Station are as follows.

*Eastern*—from 3° 30' North, 169° East, south to 1° South, thence east to 170° East, thence south along this meridian to 30° South, thence to 45° South, 160° East, thence south along this meridian.

*Northern*—from 3° 30' North, 169° East, west to 125° East, thence south to the coast of Celebes, thence west along the coast of Celebes to 120° East, thence south along this meridian to 10° South, thence west to 78° East.

*Western*—from 10° South, 78° East, south along this meridian.

2. **Ships of the Royal Australian Navy.**—The following ships were in commission or in reserve in June, 1963.

In commission:—*Melbourne*—aircraft carrier; *Sydney*—fast troop transport; *Supply*—fast fleet replenishment tanker; *Anzac*, *Vampire*, *Vendetta* and *Voyager*—destroyers; *Stuart*, *Parramatta*, *Quiberon*, *Yarra*, *Diamantina* (training), *Gascoyne* (training), *Barcoo* (survey), and *Warrego* (survey)—frigates; *Kimbla* (trials)—boom defence vessel; *Hawk*, *Gull*, *Ibis*, *Teal*, *Curlew* and *Snipe*—minesweepers; *Bass* (survey) and *Banks* (fishery protection)—general purpose vessels; *Paluma* (survey)—coastal survey vessel.

In reserve:—*Arunta* and *Tobruk*—destroyers; *Culgoa*, *Queenborough*, *Quickmatch* and *Swan*—frigates; *Kangaroo*, *Karangi*, *Kookaburra* and *Koala*—boom working vessels; *Sprightly*—fleet tug.

Under dockyard control:—*Derwent*—frigate (completing).

3. **Ships' Service Outside Australian Waters.**—During the year ended June, 1963, H.M.A. Ships *Melbourne*, *Supply*, *Vampire*, *Voyager*, *Yarra*, *Parramatta*, *Quiberon*, and *Queenborough* served on the Far East Station as units of the Commonwealth Strategic Reserve with headquarters at Singapore. H.M.A. Ships *Diamantina* and *Gascoyne* also made visits beyond the limits of the Australia Station. H.M.A.S. *Supply* and the six minesweepers of the 16th Minesweeping Squadron made passage from the United Kingdom via Suez and Singapore to Australia on their delivery voyage between October and December, 1962.

4. **Personnel.**—The authorized establishment strength of the Royal Australian Navy will be 14,300 officers and ratings. In December, 1962, the actual strength of the Naval Forces, permanent and reserves, serving full time, was 1,195 officers and 9,539 ratings, including 97 native ratings of the Papua and New Guinea Division of the Royal Australian

Navy. Seventy-five cadet midshipmen, including 22 not on pay, were undergoing training at the Royal Australian Naval College. Sixteen officers and 403 ratings were serving in the Women's Royal Australian Naval Service. Reserve strength in December, 1962, comprised 989 officers and 4,942 ratings.

The established personnel strength of the W.R.A.N.S. is 16 officers and 490 ratings. They serve in the shore establishments in the following categories: radio-operators, regulating, writers, stores assistants, sick berth attendants, motor transport drivers, Wrans (radar plot), cooks and stewards.

Members of the Royal Australian Naval Reserve are the drilling reserve of the Citizen Naval Forces. They carry out weekly training and 13 days' annual continuous training.

Officers are commissioned and may serve until retiring age is reached. Ratings engage for a period of three years. Other branches of the Citizen Naval Forces are the R.A.N. Emergency List, Royal Australian Fleet Reserve and Royal Australian Naval Volunteer Reserve. These are a non-drilling reserve, but members may volunteer for periods of annual continuous training. Pay for members of Reserve Forces is approximately that paid to members of the Permanent Naval Forces. Special courses and service for long periods are available to all selected Reservists.

The Papua and New Guinea Division of the Royal Australian Navy was inaugurated in 1951. It is based at H.M.A.S. *Tarangau*, Lohrum, Manus Island, and consists of indigenous ratings from all districts of Papua and New Guinea. There are at present 96 chief petty officers, petty officers and junior ratings employed as seamen, engineering mechanics, stores assistants, cooks, writers, and in various trades. H.M.A.S. *Banks*, now attached to H.M.A.S. *Tarangau*, has a large proportion of Papua-New Guinea ratings as members of ship's company.

**5. Fleet Air Arm.**—The Fleet Air Arm of the Royal Australian Navy is maintaining two front line squadrons embarked in the operational carrier, H.M.A.S. *Melbourne*. This ship is fitted with an angled deck, steam catapult and mirror deck-landing sights. Training and support squadrons for H.M.A.S. *Melbourne's* Sea Venom jet all-weather fighter and ground attack aircraft and Gannet turbo-prop anti-submarine aircraft are based at the Naval Air Station H.M.A.S. *Albatross* at Nowra, New South Wales. Westland Wessex anti-submarine helicopters are being delivered and will be embarked in H.M.A.S. *Melbourne* in mid-1963. Training and support squadrons for the helicopters will also be based at the Naval Air Station.

**6. Ship Construction and Repair.**—There are three naval dockyards, at Garden Island and Cockatoo Island, New South Wales, and at Williamstown, Victoria. The dockyard at Cockatoo Island is operated by the Cockatoo Docks and Engineering Company Pty. Ltd., by agreement with the Commonwealth.

Under the present ship construction programme, two anti-submarine frigates are being completed at Cockatoo Island and Williamstown and will commission in June, 1963, and January, 1964, respectively. All three dockyards are also engaged on ship refitting work for the Navy.

It is intended to obtain four submarines of the Oberon class, and initial tenders have been called in the United Kingdom. A survey vessel, for which Scout helicopters have already been purchased for the speedy establishment of triangulation points, is being built at the State Dockyard, Newcastle. Two destroyers of the *Charles F. Adams* class are being built at the Defoe Shipbuilding Yard in the United States, and a third destroyer of this class will be ordered from the United States. There is also a 15,000 ton escort maintenance ship to be constructed in Australia.

**7. Naval College and other Training Establishments.**—The Royal Australian Naval College, transferred in 1930 from Jervis Bay, A.C.T., to Flinders Naval Depot, was re-established at Jervis Bay in January, 1958, and was commissioned as H.M.A.S. *Creswell*.

H.M.A.S. *Cerberus* at Crib Point, Westernport, Victoria, is the basic training establishment for adult ratings in the permanent forces, while several advanced training schools are established in Sydney, New South Wales.

H.M.A.S. *Leeuwin* at Fremantle, Western Australia, is the junior recruits training establishment for the permanent forces. A large proportion of instructional hours is devoted to school subjects, and the remaining instructional time is basic naval training and disciplinary training, so that on completion of training, ratings will be ready to undergo technical and specialist courses.

H.M.A.S. *Nerimba*, at Quakers Hill, New South Wales, is the Apprentice Training Establishment which provides secondary education as well as training in trades in which the lads will be employed during their service in the Royal Australian Navy.

### § 3. Military Defence

1. **General.**—(i) *State Systems.* A detailed historical account of the Australian defence forces prior to federation appears in Official Year Book No. 2, pages 1075–80. *See also* Official Year Book No. 12, page 999.

The strength of the military forces of the States at 31st December, 1900 (the eve of federation), exclusive of cadets, reservists, and rifle club members, was—New South Wales, 9,338; Victoria, 6,335; Queensland, 4,028; South Australia, 2,932; Western Australia, 2,696; Tasmania, 2,024; total for Australia, 27,353.

(ii) *Commonwealth Systems.* Under the terms of the *Constitution Act* 1900, the Commonwealth took over control of defence matters in March, 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in a number of phases. For particulars of the phases which cover the period from the welding together of the military forces of the States into one homogeneous Army in 1902 up to the re-establishment of the Military Board and the organization of Commands after the 1939–45 War, *see* Official Year Book No. 46 and earlier issues.

In 1960, a complete re-organization of the Australian Military Forces was undertaken. The re-organization involved the reshaping of the Army by:—the adoption of a pentropic divisional organization; increasing the Regular Field Force; reducing the command, training and administrative structure; and converting the Citizen Military Forces to a wholly volunteer force and eliminating national service training which was introduced in 1951 and suspended in 1959–60.

Members of the Commonwealth Military Forces have taken part in the following campaigns:—the South African War, 1902; the First World War, 1914–1918; the Second World War, 1939–1945; Korea, 1950–1954; Malaya, 1955–1960. At 28th February, 1963, 1,349 members of the Australian Military Forces were serving in Malaya and Singapore as part of the British Commonwealth Far East Strategic Reserve.

#### 2. Composition of the Australian Military Forces.—

*The Australian Regular Army.* Current planning provides for a Regular Army with an annual average strength of 22,500.

*The Citizen Military Forces.* Planned strength of the C.M.F. is 30,850 volunteers. Members are required to volunteer for service overseas in the event of war.

*Strength of the Australian Military Forces.* The effective strength of the Australian Military Forces at 28th February, 1963, was—Australian Regular Army (including 712 Pacific Islanders and 729 Women's Services), 22,206; Citizen Military Forces, 28,405.

3. **Organization.**—Army Headquarters is responsible for the policy and control of the Australian Military Forces. The Military Board consists of the Minister for the Army, President; the Chief of the General Staff; the Adjutant-General; the Quartermaster-General; the Master-General of the Ordnance; the Deputy Chief of the General Staff; the Citizen Military Forces Member; and the Secretary, Department of the Army. After the 1939–45 War, Command Headquarters were established to implement Army Headquarters policy and to command and administer those units placed under their authority. Command Headquarters are established in the mainland capital cities of Australia. The geographic extent of Commands is as follows.

*Northern Command*—the State of Queensland and a small part of northern New South Wales and the Territory of Papua and New Guinea.

*Eastern Command*—the State of New South Wales, less those parts included in Northern, Southern, and Central Commands.

*Southern Command*—the State of Victoria, the State of Tasmania, and part of southern New South Wales.

*Central Command*—the State of South Australia, plus a portion of south-western New South Wales.

*Western Command*—the State of Western Australia.

*Northern Territory Command*—the Northern Territory.

The basic formation in the re-organized Army is the pentropic division, which is designed to have improved tactical capabilities with increased mobility and flexibility under conditions of tropical warfare. The pentropic division consists of five battle groups, each under the direct command of the divisional headquarters. Each battle group has, as its basic component, an infantry battalion of larger size and greatly increased fire-power compared with the infantry battalion which existed prior to the re-organization. In addition to the strengthened infantry battalion, each battle group includes supporting elements such as armour, artillery, engineers, signals, etc.

There are two pentropic divisions, one consisting of two A.R.A. and three C.M.F. battle groups, and the other of five C.M.F. battle groups.

4. *Military Training Systems.*—(i) *The Staff College.* Until 1938, the training of staff officers was carried out in the various Military Districts throughout Australia, except in cases where officers were selected from time to time to attend courses abroad. In 1938, an Australian Command and Staff School, located in the original Officers' Mess at Victoria Barracks, Sydney, was established. Between 1939 and 1945, the training of staff officers was carried out under varying conditions by different schools in accordance with the changing needs of the war.

Early in 1946, the Staff School (Australia) was established at Seymour, Victoria, and redesignated the Staff College in conformity with other Commonwealth training establishments for training officers for command and staff appointments. The College was later moved to Queenscliff, Victoria, where it is at present situated. From 1961, the course has been of eighteen months' duration and held biennially. The normal intake is 50 students, and, on successfully completing the course, an officer is awarded the symbol "psc". The course is designed to train selected officers for appointments in all branches of the staff in peace and war, and to prepare them to assume, after experience, command and higher staff appointments.

Included in the 1963-64 course will be students from the United Kingdom, Canada, New Zealand, India, Pakistan, Ceylon, United States of America, Thailand, Malaya, Fiji and Indonesia. Vacancies on each course are reserved also for officers who may be nominated by the Royal Australian Navy, the Royal Australian Air Force and the Commonwealth Public Service.

In order to ensure common standards in tactical doctrine and staff and command training throughout the Commonwealth of Nations, liaison is maintained with other Staff Colleges, and to this end there is also a reciprocal exchange of instructors between the United Kingdom and Australia. An instructor is also provided by New Zealand.

(ii) *The Royal Military College.* The Royal Military College was established in 1911 at Duntroon in the Australian Capital Territory for the purpose of providing trained officers for the Army. The conditions of entry are laid down in the Royal Military College Regulations. The length of the normal course is four years. While at the College, Staff Cadets are wholly maintained, and, in addition, receive payment increasing with each year of the course. The course of instruction is organized into military and civil departments, and the instructional staff comprises officers of the Army and civilian professors. On graduation, cadets are appointed lieutenants in the Australian Regular Army. The College also trains New Zealand cadets for commissions in the New Zealand Permanent Forces.

(iii) *The Officer Cadet School.* The Officer Cadet School was established in 1951 at Portsea, Victoria, for the purpose of speeding up the production of junior regimental officers for the Australian Regular Army. Serving members of the Australian Regular Army, the Citizen Military Forces, National Servicemen, and civilians between the ages of 18 and 23 years are eligible to apply for entrance. A special entry provides for candidates up to 25 years. The course is of 44 weeks' duration, and, on graduation, cadets are appointed second-lieutenants in the Australian Regular Army. Graduates normally proceed to further training at the Army School of the Arm and Service to which they have been allotted, before being posted to regimental duties.

(iv) *The Women's Royal Australian Army Corps School.* The W.R.A.A.C. School, established in 1952 at Mildura, Victoria, moved to Mosman, New South Wales, in 1958. It has three wings, one whose primary task is the training of officer cadets for the W.R.A.A.C., one for the training of non-commissioned officers at all levels and for other special courses, and one which is a basic training wing. The officer cadets are selected from eligible applicants, who may be serving members between 21 and 32 years of age, or civilians between 21 and 30 years of age. The course is of six months' duration and, on graduation, cadets are appointed lieutenants in the Women's Royal Australian Army Corps.

(v) *The Army Apprentices' School.* The Army Apprentices' School was opened in 1948 at Balcombe, Victoria, with the aim of training youths as skilled tradesmen for the Australian Regular Army, and to form a background for an Army career with prospects of promotion. The course is open to boys between the ages of 15 and 17 years and provides training in a number of highly skilled trades. A three-year course of intensive theoretical and practical work at the Apprentices' School is followed by one year in an appropriate Army workshop or technical unit. At the end of their third year, boys are given their Army trade test and also take the Victorian Apprenticeship Commission's final grade public examinations, which ensures that they will be accepted as qualified tradesmen in civil life when they eventually leave the Army. In addition to trade training, the Apprentices' School provides general educational facilities up to the School Leaving Standard.

(vi) *Other Schools.* Army Schools have been established for the major Arms and Services for the purpose of training officers and other ranks in the up-to-date techniques of their own Arm or Service, to qualify them for promotion requirements and to produce trained instructors. Courses at Army Schools are conducted for members of both the Australian Regular Army and the Citizen Military Forces.

The following Army Schools have been established:—Jungle Training Centre, Armoured Centre, School of Artillery, School of Military Engineering, Transportation Training Centre, School of Military Survey, School of Signals, Infantry Centre, Army Intelligence Centre, Royal Australian Army Service Corps Centre, Royal Australian Army Medical Corps School of Army Health, Royal Australian Army Ordnance Corps School, Royal Australian Electrical and Mechanical Engineers' Training Centre, School of Music, and Air Support Unit (Army Component).

5. *Women's Services.*—In July, 1950, approval was given for the enlistment of women into the Australian Regular Army on a limited scale. Enlistment into the Royal Australian Army Nursing Service commenced in November, 1950, and into the Australian Women's Army Corps early in 1951. In February, 1951, the Royal Australian Army Nursing Service became a Corps and was designated the Royal Australian Army Nursing Corps (R.A.A.N.C.). During June, 1951, the Australian Women's Army Corps was redesignated the Women's Royal Australian Army Corps (W.R.A.A.C.). The Women's Services in the Australian Regular Army now comprise two Corps only, the Royal Australian Army Nursing Corps and the Women's Royal Australian Army Corps.

Women's Services are incorporated in the Citizen Military Forces, and one company of the Women's Royal Australian Army Corps is located in each Command excluding Northern Territory Command. Companies of the Royal Australian Nursing Corps are located in each Command excluding Northern Territory Command.

6. *The Australian Cadet Corps.*—The Australian Cadet Corps is a voluntary organization. It serves as a training ground to provide, to some extent, the future officers and non-commissioned officers of the Australian Military Forces, and, as such, occupies a foremost position in the scheme of national defence. The Australian Cadet Corps, however, does not form part of the Australian Military Forces. School Cadet units are raised at educational establishments throughout the Commonwealth and Papua and New Guinea, except in the Northern Territory. The minimum age for enrolment is the year in which the applicant reaches the age of 14 years, and cadets, who, in the large majority of schools receive a free issue of A.M.F. pattern uniform, may remain in the Cadet Corps until they cease to be pupils of the educational establishments concerned. A few units retain their own pattern school uniform and are not issued with A.M.F. pattern uniforms. Provision is made for the appointment of officers, cadet under-officers, warrant and non-commissioned officers on an authorized establishment scale from within school units. School Cadet units may be, and in many cases are, affiliated with Citizen Military Force units.

The establishment of the Corps is 38,500 all ranks, and at 28th February, 1963, comprised 309 School Cadet units with a posted strength of 37,461, all ranks.

#### § 4. Air Defence

1. **General.**—A statement regarding the preliminary steps taken in connexion with the development of air defence appears in Official Year Book No. 18, page 610, and one on the expansion and development and zones and operations of the Royal Australian Air Force during the 1939–45 War, in Official Year Book No. 36, page 1027.

2. **Administration and Organization.**—(i) *General.* The Department of Air is responsible for policy for the organization and control of the Royal Australian Air Force. The Air Board is responsible, subject to approved policy, for the control and administration of the Royal Australian Air Force, and is constituted as follows:—Chief of the Air Staff, Air Member for Technical Services, Air Member for Personnel, Air Member for Supply and Equipment, and the Secretary, Department of Air.

Headquarters of the Royal Australian Air Force is in Canberra. A R.A.A.F. representative is located in London, and Air Attachés are located in Paris and Washington.

(ii) *Commands.* The units of the Royal Australian Air Force are organized into the following two functional Commands throughout Australia and its Territories.

*Operational Command*—responsible for the command of operational units and the conduct of their operations within Australia and its territories.

*Support Command*—responsible for the command of training units, supply and servicing units; recruitment and individual training in the R.A.A.F.; and supply and servicing, including technical servicing of the R.A.A.F. in Australia.

(iii) *Formations and Units.* The organization of the Royal Australian Air Force includes the following types of formations and units.

*Formations*—comprising a headquarters unit to control the activities of a number of units at one location; each formation has a base squadron which provides common services to all units at the location.

*Flying Squadrons*—bomber, fighter, transport, and maritime reconnaissance squadrons which undertake the operational and, in conjunction with operational conversion units, the operational training flying commitments of the R.A.A.F.

*Operational Conversion Units*—specializing in operational conversion training of aircrew for the bomber and fighter squadrons.

*Aircraft Depots*—specializing in major overhauls, etc., of aircraft and equipment and relieving flying unit ground staff of these commitments.

*Stores Depots*—centrally located depots to which stores and equipment ordered by the R.A.A.F. are delivered for distribution to units.

*Flying Training, Ground Training, Navigation, Radio and Air Armament Training Units*—specializing in the aircrew and ground staff training required by the R.A.A.F.

*Airfield Construction Squadrons*—specializing in the construction of R.A.A.F. aerodromes and associated buildings and works services.

*Royal Australian Air Force Academy*—the training college for officer cadet entrants to the R.A.A.F.

*Telecommunications Units*—responsible for the communications services of the R.A.A.F.

*R.A.A.F. Staff College*—trains specially selected R.A.A.F. officers for higher staff and command posts.

3. **Aircraft.**—Some of the aircraft which are at present being used in the Royal Australian Air Force are: bomber squadrons—Canberra; fighter squadrons—Avon Sabre; transport squadrons—Dakota, Hercules and Metropolitan; maritime reconnaissance squadrons—Neptune; Army liaison squadron—Bell helicopter and Cessna; Search and Rescue squadron—Iroquois helicopter; training—Avon Sabre, Canberra, Dakota, Meteor Vampire and Winjeel.



4. **Personnel.**—The Royal Australian Air Force establishment comprises an operational element and a support element consisting of 16,282 personnel. The support element includes headquarters and administrative staffs and the organization for training, supply and maintenance.

At 1st May, 1963, the strength of the Royal Australian Air Force was as follows:—Permanent Air Force, 15,838; Citizen Air Force, 714; and General Reserve, 16,397.

At 1st June, 1963, the Women's Royal Australian Air Force had an establishment of 865, with an enlisted strength of 773. There are 27 musterings, excluding members of the W.R.A.A.F. in training. The entry age is 18 to 34 years inclusive. All W.R.A.A.F. trainees undergo a month's initial training course at Point Cook, Victoria. On graduating, they are posted for duty to R.A.A.F. units anywhere in Australia. Wherever possible, the Air Force endeavours to post members of the W.R.A.A.F. to R.A.A.F. units according to an indicated preference.

### § 5. Department of Supply

1. **General.**—On 17th March, 1950, the Department of Supply was created to take over the functions of the former Department of Supply and Development, except those relating to the Bureau of Mineral Resources, Geology and Geophysics, which were transferred to the Department of National Development on that date. The Department of Supply and Development had been formed in April, 1948, to take over the munitions and aircraft activities of the Department of Munitions and the supply activities of the Department of Supply and Shipping. To these were added the design and inspection activities of the Department of the Army in February, 1950.

On 11th May, 1951, the munitions and aircraft production and the defence production planning activities of the Department were transferred to a newly created Department of Defence Production. The Department of Supply continued to exercise the remaining functions except shipbuilding, which was transferred to the Department of Shipping and Transport. In April, 1953, the control of materials used in producing atomic energy was vested in a newly created Australian Atomic Energy Commission, which was administered by the Minister for Supply until October, 1956, when it became the responsibility of the Minister for National Development. In March, 1958, responsibility for the production of aluminium was transferred to the Department of National Development. The Australian Aluminium Production Commission, the executive body appointed to carry out this function, became responsible to the Minister for National Development as from that date.

On 24th April, 1958, the Department of Defence Production was abolished, and the functions of that Department were re-transferred to the Department of Supply. References to those functions and to the activities of the various branches and establishments of the former Department of Defence Production are contained in Official Year Book No. 44, pp. 1059–61. On 11th March, 1959, the design and inspection functions were re-transferred to the Department of the Army.

On 18th December, 1959, the Department assumed responsibility for the operation and management of space tracking stations in Australia on behalf of the United States National Aeronautics and Space Administration. On 29th March, 1962, Australia became a foundation member of the European Launcher Development Organisation, and the Department accepted responsibility for the test firing of the launching rocket for that Organisation's communications satellite, using the facilities of the Woomera Rocket Range.

2. **Functions of the Department.**—The functions of the Department of Supply include the following.

Defence research and development, including the operation of the Joint United Kingdom—Australia Long Range Weapons Project, and Australian research and development through the Weapons Research Establishment, the Aeronautical Research Laboratories, the Defence Standards Laboratories and associated establishments.

Manufacture, acquisition, provision and supply of munitions (including aircraft) and miscellaneous goods and services required by the defence forces.

Arrangement of contracts for the supply of goods and the performance of services.

Operation and management of factories, workshops and undertakings concerned in the production of munitions (including aircraft), clothing, canvas-ware and other defence goods.

Operation and management of space tracking stations in Australia on behalf of the United States National Aeronautics and Space Administration.

Test firing of launching rocket for the European Launcher Development Organisation's communications satellite, using the facilities of the Woomera Rocket Range.

Acquisition, maintenance and disposal of strategic materials.

Planning and establishment of manufacturing facilities for the production of munitions and other defence goods.

Investigation and development of Australian sources of supply in connexion with defence.

Sale or disposal of surplus Commonwealth property other than land or buildings. Provision of Commonwealth transport facilities outside the Australian Capital Territory.

Provision and control of stores required for or in connexion with matters administered by the Department of Supply, and general storage for other Departments as required.

Provision of security services within the Department.

Arrangements for ascertaining costs and the control and limitation of profits in connexion with the production of munitions and other defence goods.

3. **Act Administered.**—The Minister for Supply administers the *Supply and Development Act 1939–1948*, except insofar as it concerns the building (*see also* Chapter XIV., p. 574, of this volume), repair and maintenance of merchant ships and the building, extension, alteration, repair and maintenance of shipyards, drydocking and repair facilities for merchant ships.

4. **Research and Development Branch.**—(i) *General.* The Research and Development Branch, which is under the control of the Chief Scientist, is responsible for research and scientific development in relation to war *matériel*, including the operation of the Joint United Kingdom—Australia Long Range Weapons Project. The Chief Scientist is also the Chairman of the Board of Management for Research and Development, which is responsible for the efficient and economical conduct of research and development undertakings. The headquarters of the Branch is situated in Melbourne, and the following establishments are included in the Branch:—Weapons Research Establishment, Salisbury, South Australia; Defence Standards Laboratories, Maribyrnong, Victoria, Finsbury, South Australia, and Alexandria, New South Wales; Aeronautical Research Laboratories, Fishermen's Bend, Victoria.

(ii) *Weapons Research Establishment, Salisbury, South Australia.* This Establishment has three main sections, namely, the Trials and Instrumentation Wing, the Weapons Research and Development Wing and the Engineering Wing.

The Trials and Instrumentation Wing is concerned with the Joint United Kingdom—Australia Long Range Weapons Project and is responsible for the testing of guided missiles developed in the United Kingdom. The Weapons Research and Development Wing is engaged chiefly on Australian-initiated research, but also provides a supporting research service for the Joint Project. The Engineering Wing designs the technical features of new installations on the range and operates the engineering facilities of the Establishment.

The headquarters of Weapons Research Establishment, consisting of the main laboratory, workshop, and administrative services, is located at Salisbury.

Accommodation has been provided in the area for a number of United Kingdom firms which are developing guided weapons under contract to the British Ministry of Supply.

A modern airfield (Edinburgh Field) has been established adjacent to the Headquarters at Salisbury to meet the flying requirements of the establishment, the flying effort being provided by the R.A.A.F.

Testing ranges have been established in South Australia at Woomera, which is approximately 280 miles north-west of Adelaide and 9 miles north of Pimba, a settlement on the Trans-continental railway line.

Agreements have been signed by the Australian and United States Governments for a co-operative programme for the establishment and operation in Australia, for scientific purposes, of facilities for space vehicle tracking and communications. A space Research Station has been established at Island Lagoon, south of Woomera, for optical and telemetry tracking and recording of information from satellite and deep space probe vehicles. The station carries out this work with a Baker Nunn camera, Minitrack radio tracking equipment and an 85 ft. diameter dish radio telescope.

Tracking stations have been set up at Red Lake, north of Woomera, and at Muchea in Western Australia. These are an integral part of "Project Mercury", the "Man in Space" project of the United States National Aeronautics and Space Administration. New tracking stations are being established, including one near Canberra for deep space probes, and one at Carnarvon in Western Australia for manned space flight vehicles. In addition, the Department of Supply is now responsible for the provision of facilities at Woomera to operate a launcher for the communications satellite of the European Launcher Development Organisation, and to meet this requirement the cancelled Blue Streak facilities are being used as a basis.

A modern township of 780 family houses and flats and 1,180 single quarters, together with modern amenities such as hospital, school, kindergartens, community store, swimming pool, and all sporting facilities, has been built at Woomera to accommodate the range and allied services personnel and their families.

(iii) *Defence Standards Laboratories.* The Defence Standards Laboratories at Maribyrnong (Victoria), Finsbury (South Australia), and Alexandria (New South Wales), continue to give comprehensive service to industry, the armed services and other Commonwealth and State Departments. The broad function of these laboratories is the application of scientific knowledge and research to the problems arising in design, development, manufacture, inspection, storage, and use of war *matériel*. Research is also carried out in connexion with the development of new and improved materials, methods and equipment of known or potential interest.

(iv) *Aeronautical Research Laboratories.* The broad function of the Aeronautical Research Laboratories is the application of scientific knowledge in the field of aeronautics to the operational and technical problems of the armed Services and industry, and to the development of new weapons and military equipment. More specifically, the Laboratories conduct investigations in aerodynamics, structures, materials, and power plants, with particular attention to aeronautical defence problems, especially those of missile design and operational effectiveness. These Laboratories also collaborate with the United Kingdom on aeronautical research matters of mutual interest.

5. **Production.**—(i) *Munitions.* The Department is responsible for the production in Australia of munitions (other than specialized Navy requirements) for the Australian Services. Production is carried out substantially in government factories, but large orders are also placed with private industry.

The following government factories are currently in operation:—Ammunition—Footscray, Victoria; Explosives and Filling—Albion and Maribyrnong, Victoria; Mulwala and St. Mary's, New South Wales; Ordnance—Maribyrnong, Bendigo and Port Melbourne, all in Victoria; Small Arms—Lithgow, New South Wales; Clothing—South Melbourne and Brunswick, Victoria.

With the exception of the Clothing Factory, these factories are largely complementary to each other in the manufacture of a range of basic munitions. The Ammunition Factory makes the brass and non-ferrous components of gun ammunition, including melting and rolling the raw materials, and these components are then passed to the filling factories for filling and assembly. However, the Factory makes the complete round for small arms ammunition, the propellant being supplied by the Explosives Factories. Electronic fuses are also being developed and produced with this factory as the co-ordinating establishment. Private industry is producing the electronic components required for these fuses.

The Ordnance Factories have produced armament and propulsion gearing for Battle and Daring class destroyers and frigates. Heavy forgings are produced at Maribyrnong and heavy plate fabrications are produced at both Maribyrnong and Bendigo. At Maribyrnong, production capacity exists for fire control equipment. Steel shell bodies are produced at Maribyrnong and passed to Explosives Filling Factories to be filled with explosives and assembled with other components produced at the Ammunition Factory and in private industry into complete rounds of gun ammunition.

At Port Melbourne, production capacity exists for large marine diesel engines. Major components of these engines are forged and/or fabricated at Maribyrnong and Bendigo.

The Small Arms Factory is equipped to make the rifles and other small arms for which the Ammunition Factory produces the ammunition. The Factory is producing the F.N. 7.62 mm. automatic rifle for the Australian Army to replace the .303 in. Lee Enfield rifle and is currently tooling up for the production of 9 mm. carbines. Orders for the 7.62 mm. rifle have been received from several overseas countries. The butts and other wooden components required for these rifles are produced from Australian-grown timber and fabricated by private industry.

The Clothing Factory makes uniforms and canvas goods for the three services as well as for the Postmaster-General's and Repatriation Departments and the Department of Supply.

(ii) *Aircraft.* (a) *General.* Production of military types of aircraft and aero engines and of other aircraft components required by the Royal Australian Air Force is also administered by the Department of Supply. Planning of capacity and the negotiation of contractual arrangements in connexion with aircraft modification, repair and overhaul, and for the supply of certain aircraft and engine spare parts and airborne equipment for the R.A.A.F., the R.A.N. and the Army are also functions of the Department.

The following government factories are operated:—Aircraft Factory, Fishermen's Bend, and Test Field, Avalon, Victoria; and Airframe Repair Workshops, Parafield and Northfield, South Australia.

(b) *Aircraft, Engine and Other Production.* The current approved production programmes for the major aircraft manufacturing organizations comprise the French Mirage supersonic fighter, the Jindivik radio-controlled jet-propelled target aircraft, and the Malkara guided missile at the Government Aircraft Factory, Melbourne; French Atar turbo-jet engines and some sections of the Mirage airframe at Commonwealth Aircraft Corporation Pty. Ltd., Melbourne.

Production activities included the manufacture of engine spare parts, aircraft pressed metal parts and turbine and compressor blades for jet engines.

(c) *Repair and Overhaul.* During the year, the R.A.A.F. continued the broad policy of returning to the factories in which they were produced all Australian-made aircraft and aero engines requiring major overhaul, repair or the incorporation of modifications. Repair and overhaul of R.A.A.F. aircraft of certain other types and of carrier-based aircraft operated by the R.A.N. were undertaken by civilian personnel in the aircraft factories or in the works of contractors specially equipped for the purpose.

The reconditioning and servicing of aircraft instruments, electrical, electronic and other ancillary equipment and airframe components were carried out by various contractors.

(d) *Telecommunications.* Developmental and production orders were placed with industry for new and improved types of Service telecommunications equipment. Large quantities of this equipment were also repaired and overhauled.

6. *Contract Board.*—(i) *General.* Under the *Supply and Development Act 1939–1948*, the Contract Board is the authority responsible for purchasing supplies and arranging services for the Naval, Military and Air Forces of the Commonwealth, as well as for the Department of Supply. It is also responsible for the sale or disposal of all surplus or unserviceable Commonwealth goods approved for disposal. In addition, the Board purchases on behalf of other Commonwealth departments and authorities which have no public contract organization of their own, e.g., Immigration, National Development and External Affairs (Colombo Plan supplies).

(ii) *The Board and its Administrative Organization.* The Contract Board meets in Melbourne, and comprises representatives of the Departments of Supply, Navy, Army and Air. The Board's administrative organization is the Directorate of Contracts. In each State other than Victoria, there is a District Contract Board with an administrative organization similar to the Directorate of Contracts. The table following shows, in respect of the Contract Board organization, the purchases and realizations from disposals for the years 1960–61 and 1961–62.

**CONTRACT BOARD ORGANIZATION: PURCHASES AND REALIZATIONS  
FROM DISPOSALS  
(£)**

State	Purchases		Realizations from disposals	
	1960-61	1961-62	1960-61	1961-62
Contract Board, Victoria .. ..	21,589,537	39,052,328	2,909,299	1,380,091
District Contract Board—				
New South Wales .. ..	5,021,320	7,359,936	1,663,509	1,556,825
Queensland .. ..	944,056	1,072,749	586,846	315,856
South Australia .. ..	1,942,675	1,709,412	463,891	508,433
Western Australia .. ..	471,056	357,019	355,204	201,455
Tasmania .. ..	97,471	94,887	97,639	39,147
<b>Total .. ..</b>	<b>30,066,105</b>	<b>49,646,331</b>	<b>6,076,388</b>	<b>4,001,797</b>

7. **Defence Supply Planning.**—The central planning authority of the Department is the Planning Branch, whose principal functions are:—

- to plan for and to assist in the development of additional production capacity to meet the Services' munitions requirements for peace and war;
- to provide and administer stockpiles of relevant materials and reserve pools of plant and equipment considered essential for expansion of production in the event of war;
- to prepare and advance co-ordinated production programmes against Service orders and to analyse and interpret achievement against these programmes for the information of the Department and the Services;
- to provide advisory services in the field of instrumentation, machine tools, materials, and inspection to Government factories and contractors engaged in the production of munitions requirements; and
- to administer the national stockpile.

A series of Industry Advisory Committees has been established to advise the Minister and the Department in the development of industrial mobilization plans to meet the Services' *matériel* requirements for mobilization and war. The Committees are:—Ammunition; Electrical; Explosives and Chemicals; Machine Tools and Gauges and Munitions Factory Equipment; Materials; Military Vehicles; Radar and Telecommunications; Weapons and their Equipment; Hard Fibres; Raw Cotton; and Rubber and Allied Materials.

Members of the Committees include industrialists of wide experience and the highest ability in their chosen fields.

8. **Stores and Transport Branch.**—This Branch, administered by a Board of Management and working under the direction of a General Manager, functions as the Central Storage Authority and the Central Transport Authority for all Commonwealth Departments. It is the authority for the arrangement of furniture removals at departmental expense in all States, but not in the Australian Capital Territory or the Northern Territory. It has agents in Canberra and Darwin. It also operates a Shipping and Customs Section and the England-Australia Bulk Air Freight Scheme for Commonwealth Departments.

On 30th June, 1962, the Branch had under its control land, buildings and works, vehicles, plant and equipment valued at £10,344,716, and 3,274,000 sq. ft. of storage space, as well as storage facilities for large quantities of chemicals, bulk liquids and explosives.

9. **Finance Branch.**—The total expenditure on Department of Supply activities during the year 1961-62 was £53,040,000, comprising £21,644,000 from Parliamentary appropriations, and £31,396,000 from Trust Fund Accounts. The latter consisted of—Stores and Transport, £6,631,000; Government Factories and Establishments, £16,790,000; Munitions Production, £7,875,000; and Defence Production Materials, £100,000.

## CHAPTER XXVII

## REPATRIATION

## § 1. General

The Repatriation Commission, established under the *Repatriation Act* 1920-1962, and consisting of three full-time members, is responsible for the administration of the *Repatriation Act* and associated legislation, all matters of policy, and the general administration and overall supervision of the Repatriation Department. The central office is in Melbourne and there is a branch office under the control of a Deputy Commissioner in each State.

The principal functions of the Department are:—the payment of war and service pensions to ex-service men and women and their dependants; the provision of medical treatment to ex-service men and women for injuries and illnesses caused or aggravated by their war service; the provision of medical treatment in certain circumstances to ex-service men and women who are suffering from injuries and illnesses not caused or aggravated by war service; and the provision of medical treatment to widows and dependants of deceased ex-servicemen whose deaths are due to war service.

Other functions of the Repatriation Department are outlined in a later section of this chapter (see § 5, General Benefits and Miscellaneous, pp.1218-20).

Benefits are provided in respect of service, not only in the 1914-18 and 1939-45 Wars, but also in the Korea and Malaya operations, with the British Commonwealth Far East Strategic Reserve and the Special Overseas Forces.

## § 2. War Pensions

1. **General.**—The first provision for the payment of war pensions to ex-servicemen and their dependants was made by the Commonwealth Parliament in the *War Pensions Act* 1914, which came into operation on 21st December, 1914. This Act was repealed in 1920 by the *Australian Soldiers' Repatriation Act* (amended from 31st December, 1950, to the *Repatriation Act*). The main features relating to war pensions under the *Repatriation Act* 1920-1962 are set out in the following paragraphs.

(i) **Eligibility for Pension.** The 1943 amendments to the *Repatriation Act* considerably widened the provisions in this respect, to the benefit, mainly, of members of the Citizen Military Forces who had not served outside Australia. These provisions are summarized as follows.

A member of the forces who served (1) outside Australia, (2) in the Territories of Australia, such as Papua and New Guinea, or (3) within Australia in circumstances which can be regarded as combat against the enemy, is covered for war pension purposes in respect of incapacity or death which may result from any occurrence that happened during the period from the date of his enlistment to the date of the termination of his service in respect of that enlistment.

In other cases where a member served only in Australia, incapacity or death to be pensionable must have been attributable to service.

There is a third ground applicable to all in (a) and those in (b) who had at least six months' camp service. This provides that, where a condition existed at enlistment, a pension may accrue if it is considered that the condition was aggravated by service.

(ii) **Pensions for Incapacity.** From 28th September, 1961, the 100 per cent. pension rate for an ex-serviceman's incapacity was increased from £5 10s. to £5 15s. a week (higher rates are payable in respect of certain commissioned ranks). The rates for wives and children of incapacitated ex-servicemen are £1 15s. 6d. and 13s. 9d. a week, respectively.

(iii) **Supplementation of Pensions.** Where an ex-serviceman, because of his war disability, is temporarily (for at least three months) precluded from earning other than a negligible percentage of a living wage, an additional pension may be granted to bring the total pension to the ex-serviceman up to £13 5s. a week, an increase of 10s. from 28th September, 1961.

(iv) **Women's Nursing and Auxiliary Services.** Members of Women's Services are eligible for pensions and other benefits as prescribed in the Act on the same basis as male members of the Forces.

(v) *Pulmonary Tuberculosis.* If, at any time after discharge, an ex-serviceman who served in a theatre of war becomes incapacitated or dies from pulmonary tuberculosis, war pension is payable as if the incapacity or death resulted from an occurrence on service. (See also § 3. Service Pensions.) Medical treatment may also be provided.

(vi) *Special Rates.* Those who have been totally blinded as a result of war service and those who are permanently and totally incapacitated receive a special pension which was increased from £12 15s. to £13 5s. a week from 28th September, 1961. This special pension may also be granted to ex-servicemen who are suffering from pulmonary tuberculosis. In addition, there is an intermediate rate for tuberculosis patients fit for light employment. This intermediate rate was similarly increased from £8 17s. 6d. to £9 7s. 6d. a week. In addition to the special pension, an attendant's allowance of £3 5s. a week is granted to the war-blinded and to certain others who are deemed to be in need of an attendant. A war-blinded ex-serviceman who is also affected with total loss of speech or total deafness is entitled to an attendant's allowance of £5 5s. a week. Wives and any children under 16 years of age receive the rates shown in sub-para. (ii).

(vii) *Clothing Allowance.* As from 1st October, 1959, provision was made for ex-servicemen to receive a clothing allowance ranging from 3s. 9d. to 7s. 6d. weekly for damage to clothing caused by the use of an artificial limb or other appliance, where the incapacity is due to war service, or by the use of oils, ointments, etc., used in the treatment of accepted disabilities, e.g., skin diseases, suppurating wounds, etc.

(viii) *Specified Disabilities.* Where the disability is amputation of a limb or limbs or total loss of vision in one eye, amounts ranging from 13s. 6d. to £7 10s. a week in addition to the statutory rate of pension are payable as from 28th September, 1961. In addition, attendant's allowances of either £3 5s. or £5 5s. a week are payable in certain double amputation cases.

(ix) *Time Limit Removed for Wives and Children.* Prior to the 1950 amending Act, wives who were married and children who were born after specified dates were ineligible to receive a war pension. This time limit was removed as from 2nd November, 1950.

(x) *Rates of Pension for Death.* (a) *Widows.* From 28th September, 1961, the rates of pension were increased by 5s. a week, the minimum rate being increased from £5 10s. to £5 15s. a week (higher rates are payable in respect of certain commissioned ranks).

In addition to pension, a widow receives an allowance if she has a dependant child or children under the age of 16 years, or if she is over 50 years of age, or is permanently unemployable, or has a child over 16 years who is undertaking education or training and who is, in the opinion of the Commission, not receiving an adequate living wage.

(b) *Children.* From 28th September, 1961, the rate of pension for the eldest child (under 16 years of age) was increased from £1 11s. 6d. a week to £1 19s. a week, and that for each younger child from £1 2s. 6d. a week to £1 7s. 6d. a week. Additional pension of 6s. a week may be paid in certain circumstances. Where both parents are dead, pension payable to each child was increased from £3 3s. a week to £3 11s. 6d. a week.

(xi) *Widowed Mother on Death of Member.* A pension ranging from £2 5s. to £4 3s. a week, according to the rank of the ex-serviceman, may be granted to the widowed mother of a deceased unmarried son, provided widowhood occurred either prior to or within three years after the death of the member. The pension may be supplemented by payment of an additional amount (not exceeding £5 5s. a week as from 28th September, 1961) according to the extent of other income of the pensioner. The value of property owned does not affect the pension.

2. *Appeals Tribunals.*—The principal Act was amended, as from 1st June, 1929, to create tribunals to hear appeals in respect of war pensions. The War Pensions Entitlement Appeal Tribunal is empowered to hear and decide any appeal by or on behalf of ex-servicemen or their dependants against a decision of a Repatriation Board or the Repatriation Commission that the incapacity or death of an ex-serviceman did not arise out of war service. Assessment Appeal Tribunals were created to hear and decide any appeal against a current assessment or a "Nil" assessment of war pension made by the Repatriation Commission in respect of the incapacity of an ex-serviceman which had been accepted as arising out of war service. Provision was made by subsequent legislation to enable the tribunals to hear appeals by certain members whose application for a service pension had been refused on the grounds that they were not suffering from pulmonary tuberculosis or were permanently unemployable.

3. *Summary of War Pensions, 1961-62.*—The following table provides a summary of war pensions for the 1914-18 War, the 1939-45 War, the Korea and Malaya operations and the Far East Strategic Reserve.

## WAR PENSIONS: SUMMARY, AUSTRALIA, 1961-62

Particulars	1914-18 War	1939-45 War	Korea and Malaya operations	Far East Strategic Reserve	Total
New claims granted .. ..	2,422	30,794	969	152	34,337
Restorations .. ..	359	926	15	..	1,300
Claims rejected(a) .. ..	1,872	7,030	383	70	9,355
Pensions cancelled or discontinued ..	829	17,877	106	4	18,816
Deaths of pensioners .. ..	4,680	3,246	23	1	7,950
Number of pensioners in force at 30th June, 1962 .. ..	118,586	543,904	7,412	276	670,178
Annual pension liability at 30th June, 1962 .. .. £	23,890,878	38,553,597	398,574	15,840	62,858,889
Amount paid in pensions during the year 1961-62 .. .. £	n.a.	n.a.	n.a.	n.a.	61,873,988

(a) Number of claimants who had their claims for all their disabilities rejected.

4. **Classes of War Pensions, Australia, 1961-62.**—(a) *New Claims Granted.* The following is an analysis of the total number of new claims granted during 1961-62.

## WAR PENSIONS: NEW CLAIMS GRANTED, AUSTRALIA, 1961-62

Class	1914-18 War	1939-45 War	Korea and Malaya operations	Far East Strategic Reserve	Total
Ex-servicemen .. ..	1,013	7,204	188	55	8,460
Wives of ex-servicemen .. ..	1,159	6,904	187	32	8,282
Children .. ..	104	15,756	583	61	16,504
Other dependants .. ..	146	930	11	4	1,091
<b>Total .. ..</b>	<b>2,422</b>	<b>30,794</b>	<b>969</b>	<b>152</b>	<b>34,337</b>

(b) *Pensions in Force.* The following table shows the number of pensions in force at 30th June, 1962, for each war and for each class of pensioner.

## WAR PENSIONS IN FORCE: AUSTRALIA, 30th JUNE, 1962

Class	Number of pensioners at 30th June, 1962				
	1914-18 War	1939-45 War	Korea and Malaya operations	Far East Strategic Reserve	Total
Ex-servicemen .. ..	48,670	165,101	2,208	104	216,083
Wives .. ..	45,004	139,277	1,615	58	185,954
Children .. ..	1,374	210,300	3,301	86	215,061
War widows .. ..	22,375	14,722	70	7	37,174
Children of deceased ex-servicemen	191	6,980	120	16	7,307
Orphans .. ..	18	143	..	1	162
Parents .. ..	677	7,056	95	3	7,831
Brothers and sisters .. ..	55	101	3	..	159
Others .. ..	222	224	..	1	447
<b>Total .. ..</b>	<b>118,586</b>	<b>543,904</b>	<b>7,412</b>	<b>276</b>	<b>670,178</b>

(c) *Special Rate Pensions.* At 30th June, 1962, special rate pensions were being paid to the following classes of ex-servicemen.

## WAR PENSIONS: MEMBERS ON SPECIAL RATES, AUSTRALIA, 30th JUNE, 1962

Class	1914-18 War	1939-45 War	Korea and Malaya operations	Far East Strategic Reserve	Total
Totally and permanently incapacitated ex-servicemen .. ..	12,683	7,706	25	..	20,414
Blinded ex-servicemen .. ..	221	235	1	..	457
Tuberculous ex-servicemen .. ..	401	377	14	..	792
Tuberculous ex-servicemen (intermediate rate) .. ..	102	228	1	..	331



5. Number of War Pensions and Annual Liability, States, etc., 30th June, 1962.—The following table shows the number of pensions in force and annual liability for each war at 30th June, 1962, according to place of payment. (The amount paid is shown on p. 1216.)

**WAR PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY,  
30th JUNE, 1962**

Where paid	Number of war pensions in force at 30th June, 1962				Annual pension liability (£)
	Incapacitated ex-service-men	Dependants of incapacitated ex-service-men	Dependants of deceased ex-service-men	Total	
1914-18 WAR					
New South Wales(a) .. ..	15,541	14,865	7,836	38,242	7,842,736
Victoria .. ..	16,173	15,127	7,814	39,114	7,946,552
Queensland .. ..	6,244	5,852	2,270	14,366	3,138,443
South Australia(b) .. ..	3,828	3,811	1,854	9,493	1,901,703
Western Australia .. ..	3,838	3,989	1,624	9,451	1,542,973
Tasmania .. ..	2,080	2,036	945	5,061	1,077,207
<i>Australia</i> .. ..	<i>47,704</i>	<i>45,680</i>	<i>22,343</i>	<i>115,727</i>	<i>23,449,614</i>
Abroad .. ..	966	1,092	801	2,859	441,264
Total .. ..	48,670	46,772	23,144	118,586	23,890,878

1939-45 WAR					
New South Wales(a) .. ..	57,643	114,129	10,793	182,565	13,395,957
Victoria .. ..	45,586	98,548	7,498	151,632	10,466,322
Queensland .. ..	23,159	52,144	3,688	78,991	6,051,798
South Australia(b) .. ..	16,969	38,238	2,957	58,164	3,760,102
Western Australia .. ..	14,788	30,541	2,466	47,795	3,198,616
Tasmania .. ..	6,377	15,840	812	23,029	1,499,273
<i>Australia</i> .. ..	<i>164,522</i>	<i>349,440</i>	<i>28,214</i>	<i>542,176</i>	<i>38,372,068</i>
Abroad .. ..	579	857	292	1,728	181,529
<b>Total .. ..</b>	<b>165,101</b>	<b>350,297</b>	<b>28,506</b>	<b>543,904</b>	<b>38,553,597</b>

**KOREA AND MALAYA OPERATIONS**

New South Wales(a) .. ..	855	1,805	119	2,779	147,302
Victoria .. ..	507	1,081	58	1,646	84,639
Queensland .. ..	392	913	49	1,354	79,434
South Australia(b) .. ..	158	404	10	572	29,071
Western Australia .. ..	175	439	23	637	32,500
Tasmania .. ..	79	219	9	307	15,330
<i>Australia</i> .. ..	<i>2,166</i>	<i>4,861</i>	<i>268</i>	<i>7,295</i>	<i>388,276</i>
Abroad .. ..	42	58	17	117	10,278
<b>Total .. ..</b>	<b>2,208</b>	<b>4,919</b>	<b>285</b>	<b>7,412</b>	<b>398,574</b>

**FAR EAST STRATEGIC RESERVE**

New South Wales(a) .. ..	40	76	12	128	5,748
Victoria .. ..	19	25	4	48	3,264
Queensland .. ..	25	31	8	64	4,951
South Australia(b) .. ..	6	6	..	12	487
Western Australia .. ..	13	8	..	21	960
Tasmania .. ..	1	..	..	1	30
<i>Australia</i> .. ..	<i>104</i>	<i>146</i>	<i>24</i>	<i>274</i>	<i>15,440</i>
Abroad .. ..	..	..	2	2	400
<b>Total .. ..</b>	<b>104</b>	<b>146</b>	<b>26</b>	<b>276</b>	<b>15,840</b>

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

6. **Summary of War Pensions.**—(i) *Number.* The following table shows, for each war and in total, the number of pensions granted, pensions in force, and the annual liability for pensions in each of the years ended 30th June, 1958 to 1962.

## WAR PENSIONS: SUMMARY, AUSTRALIA

Year ended 30th June—	Pensions granted	Claims rejected	Number of war pensions in force at 30th June				Annual pension liability at 30th June (£)
			Incapaci- tated ex-service- men	Depend- ants of incapaci- tated ex-service- men	Depend- ants of deceased ex-service- men	Total	
1914-18 WAR							
1958 .. ..	2,353	2,368	55,814	52,806	21,985	130,605	20,739,134
1959 .. ..	2,098	2,767	54,005	51,215	22,240	127,460	21,032,135
1960 .. ..	2,343	2,638	52,324	49,861	22,528	124,713	22,428,690
1961 .. ..	2,094	(b) 2,085	50,338	48,205	22,743	121,286	23,017,259
1962 .. ..	2,422	(b) 1,872	48,670	46,772	23,144	118,586	23,890,878

## 1939-45 War

1958 .. ..	29,007	18,165	147,147	321,215	25,269	493,631	28,339,013
1959 .. ..	27,829	18,954	151,249	332,691	25,758	509,698	29,904,732
1960 .. ..	28,397	17,852	155,534	341,985	26,327	523,846	33,056,692
1961 .. ..	27,202	(b) 14,718	159,727	346,391	27,205	533,323	35,147,236
1962 .. ..	30,794	(b) 7,030	165,101	350,297	28,506	543,904	38,553,597

## KOREA AND MALAYA OPERATIONS

1958 .. ..	820	989	1,478	2,408	240	4,126	235,300
1959 .. ..	834	1,193	1,670	2,970	249	4,889	269,208
1960 .. ..	908	1,174	1,864	3,593	255	5,712	311,195
1961 .. ..	913	(b) 848	2,043	4,247	261	6,551	351,539
1962 .. ..	969	(b) 383	2,208	4,919	285	7,412	398,574

## FAR EAST STRATEGIC RESERVE

1961 .. ..	61	(b) 118	53	62	15	130	7,339
1962 .. ..	152	(b) 70	104	146	26	276	15,840

## TOTAL

1958 .. ..	32,180	21,522	204,439	376,429	47,494	628,362	49,313,447
1959(a) ..	30,761	22,914	206,924	386,876	48,247	642,047	51,206,075
1960(a) ..	31,648	21,664	209,722	395,439	49,110	654,271	55,796,577
1961 .. ..	30,270	(b) 17,769	212,161	398,905	50,224	661,290	58,523,373
1962 .. ..	34,337	(b) 9,355	216,083	402,134	51,961	670,178	62,858,889

(a) Excludes Far East Strategic Reserve pensioners:—1959—16, 1960—65, with annual liability 1959—£1,410, 1960—£3,733. (b) For the years 1957-58, 1958-59, and 1959-60, the figures for claims rejected refer to individual claims for each disability. The basis of showing rejected claims was changed during 1960-61 to show the number of claimants who had the claims for all their disabilities rejected.

(ii) *Amount Paid and Place of Payment.* The following table shows, for the years 1957-58 to 1961-62, the amounts paid in pensions and the place where they were paid.

### WAR PENSIONS: AMOUNT PAID

(£)

Place of payment	1957-58	1958-59 (a)	1959-60 (a)	1960-61	1961-62
New South Wales(b) .. .. .	16,824,229	16,813,419	18,167,146	20,266,212	21,009,992
Victoria .. .. .	14,871,179	15,201,405	16,100,551	18,321,955	18,419,806
Queensland .. .. .	6,919,363	7,215,834	7,741,918	8,916,007	9,039,080
South Australia(c) .. .. .	4,812,417	4,846,030	5,052,143	5,686,305	5,579,118
Western Australia .. .. .	4,008,412	3,946,502	4,235,747	4,654,877	4,663,499
Tasmania .. .. .	2,211,862	2,229,229	2,416,016	2,582,985	2,493,889
Abroad .. .. .	630,735	605,004	648,344	622,560	666,604
<b>Total .. .. .</b>	<b>50,278,197</b>	<b>50,857,423</b>	<b>54,361,865</b>	<b>61,050,901</b>	<b>61,873,988</b>

(a) Excludes payments to Far East Strategic Reserve pensioners.  
(c) Includes the Northern Territory.

(b) Includes the Australian Capital Territory.

### § 3. Service Pensions

1. *General.*—The *Repatriation Act* 1920-1962, administered by the Repatriation Department, provides for a service pension to be paid, subject to a means test of income and property, to the following persons.

A male ex-serviceman aged 60 years or over who served in a theatre of war, or an ex-servicewoman aged 55 years or over who served abroad. No pension is payable to the wife or children under 16 years of age of an ex-serviceman granted a service pension on account of age.

An ex-serviceman who is permanently unemployable and who served in a theatre of war (or in the case of an ex-servicewoman, who served abroad). Service pensions are also payable to a pensioner's wife and up to four children under 16 years of age.

An ex-serviceman suffering incapacity from pulmonary tuberculosis whether or not the person served in a theatre of war. (Only those persons who qualify in this group are entitled to receive both service and invalid pensions at the same time, subject to the maximum permissible income.) Service pensions are also payable to a pensioner's wife and up to four children under 16 years of age.

2. *Rate of Pension.*—The maximum rate of service pension is the same as that for age and invalid pensions paid by the Department of Social Services, namely, £5 5s. a week. A service pensioner with two or more children under 16 years of age in his care, custody and control, is eligible for a further 10s. a week for each child except the first, if he receives a service pension on the ground of being permanently unemployable, or is suffering from pulmonary tuberculosis. In addition, a service pensioner in receipt of service pension at the maximum rate may also receive supplementary assistance of 10s. a week if he pays rent and is entirely dependent upon his service pension.

The maximum rate for a wife is £2 17s. 6d. a week; the rate for the first child under sixteen years of age is 15s. a week and for each other child (not exceeding three) 2s. 6d. a week.

The means test sets limits to the amount of income or property which a pensioner may have for the purpose of service pension. The amount of service pension payable depends upon the claimant's "means as assessed", which consists of his annual rate of income plus a property component equal to 9d. a fortnight for each complete unit of £10 of net value of property above £200. For married couples, except where they are separated or in other special circumstances, the income and property of each for purposes of applying the means test is taken to be half the total income and property of both, even if only one is a pensioner or claimant. A person's "means as assessed" may consist entirely of income, entirely of property, or of both income and property components. If his "means as assessed" do not exceed £3 10s. a week, the claimant receives the full pension of £5 5s. a week. If his "means as assessed" exceed £3 10s. a week and are less than £8 15s. a week, a reduced

pension is payable. The rate payable is the maximum rate of £5 5s. a week less the amount by which "means as assessed" exceed £3 10s. a week. If his "means as assessed" are £8 15s. a week or more, or in the case of a married couple £17 10s. a week or more, no service pension is payable.

Income means earnings and other forms of income derived from any source, with certain exceptions, of which the principal are—certain income derived from property, gifts or allowances from children, parents, brothers or sisters, benefits from friendly societies, child endowment, Commonwealth health benefits. The value of board and lodgings received by a pensioner is assessed as income at 12s. 6d. a week. Property includes all real and personal property, such as houses, land, money in hand, in a bank or on loan, shares, investments or legacies, vehicles used for business purposes, livestock. Property does not include an applicant's home, furniture or personal effects, the surrender value of life insurance policies (up to £750), the value of any reversionary interest, the capital value of any life interest, annuity or contingent interest, or vehicles maintained only for personal use.

Eligibility for service pensions was extended on 1st November, 1941, to veterans of the South African War 1899–1902, and in 1943 to members of the Forces of the 1939–45 War. Members of the Forces who served in Korea, and those who served in Malaya prior to the commencement of the *Repatriation (Far East Strategic Reserve) Act* 1956–1962, are also eligible.

An ex-serviceman or ex-servicewoman in receipt of a service pension is entitled, with certain exceptions, to free medical benefits for disabilities not caused by war. These benefits include general practitioner service, specialist service where necessary, full pharmaceutical benefits, surgical aids and appliances (including spectacles), dental treatment and treatment in Repatriation General Hospitals.

3. **Operations, 1961–62.**—The following table gives a summary of service pensions during 1961–62.

Claims granted during year—					
Ex-servicemen	..	..	..	..	9,590
Wives	..	..	..	..	2,176
Children	..	..	..	..	1,241
<i>Total</i>	..	..	..	..	<u>13,007</u>
Claims rejected during year (i.e. number of claimants who had their claims for all their disabilities rejected)					
	..	..	..	..	1,936
Service pensions cancelled or discontinued during year	..	..	..	..	3,925
Deaths of pensioners during year	..	..	..	..	2,736
Pensions in force at 30th June, 1962	..	..	..	..	57,588
Annual pension liability at 30th June, 1962	..	..	..	..	£10,430,223

4. **Number of Service Pensions and Amount Paid.**—(i) *Summary, Australia.* The following table shows the number of service pensions in force and the annual liability for pensions for the five years 1957–58 to 1961–62.

#### SERVICE PENSIONS: SUMMARY, AUSTRALIA

Year	Number of service pensions at 30th June payable to—						Annual pension liability at 30th June
	Aged ex-service-men	Ex-servicemen who are—		Dependants of ex-servicemen where the ex-serviceman is—		Total	
		Permanently unemployable	Suffering from pulmonary tuberculosis	Permanently unemployable	Suffering from pulmonary tuberculosis		
1957-58 .. ..	15,365	11,472	1,477	11,667	2,222	42,203	£ 5,998,648
1958-59 .. ..	16,973	11,898	1,433	11,956	2,112	44,372	6,244,617
1959-60 .. ..	18,193	12,140	1,379	12,080	2,026	45,818	6,924,312
1960-61 .. ..	22,125	12,645	1,273	12,520	1,739	50,302	8,343,831
1961-62 .. ..	27,479	13,603	1,246	13,597	1,663	57,588	10,430,223

(ii) *Amount Paid and State where Paid.* The following table shows for the years 1957–58 to 1961–62 the amount paid in pensions and the State where paid.

**SERVICE PENSIONS: AMOUNT PAID**

(£)

State where paid	1957–58	1958–59	1959–60	1960–61	1961–62
New South Wales(a) ..	1,899,624	2,233,721	2,359,860	2,734,907	3,156,415
Victoria .. ..	1,319,599	1,387,328	1,518,196	1,730,645	2,121,884
Queensland .. ..	945,654	995,258	1,079,810	1,213,000	1,625,003
South Australia(b) ..	520,481	583,826	643,906	762,677	1,096,731
Western Australia ..	697,531	775,769	875,706	1,051,198	1,343,470
Tasmania .. ..	246,859	244,398	270,745	290,311	368,139
<b>Australia .. ..</b>	<b>5,629,748</b>	<b>6,220,300</b>	<b>6,748,223</b>	<b>7,782,738</b>	<b>9,711,642</b>

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

#### § 4. Medical Treatment for Ex-Servicemen and Dependants of Ex-Servicemen

In-patient treatment for eligible patients is provided at the Repatriation General Hospitals in each State, at the auxiliary hospitals in New South Wales, Victoria and Western Australia, and at the sanatoria in Queensland and South Australia. For long-term patients, Anzac Hostels are maintained in Queensland and Victoria.

The numbers of medical officers and nursing staff, respectively, at departmental institutions at 30th June, 1962, were as follows—Repatriation General Hospitals, 167, 1,490; Auxiliary Hospitals, 6, 68; Sanatoria, 2, 20; Anzac Hostels, nil, 11.

At 30th June, 1962, 5,212 in-patients were in Repatriation medical institutions or treated in State mental hospitals on behalf of the Department, including a number whose care was undertaken by the Department on behalf of other countries or the armed forces. There were 487,978 out-patient attendances for treatment during the year 1961–62, and 2,279,167 treatments by local medical officers in metropolitan and country areas. The expenditure for the year ending 30th June, 1962, on medical treatment was £16,962,767.

#### § 5. General Benefits and Miscellaneous

1. **Other Departmental Activities.**—(i) *General.* During the 1939–45 War, the ordinary activities of the Department in respect of general benefits for the welfare of ex-servicemen and dependants were carried on without interruption. These activities concern mainly:—education and training of children under the Soldiers' Children Education Scheme, medical benefits for widows and children of deceased ex-servicemen and for widowed mothers of deceased unmarried ex-servicemen, funeral expenses for certain classes of ex-servicemen and dependants, and allowances to certain classes of dependants.

By legislation passed in June, 1940, these benefits were extended to servicemen engaged in the 1939–45 War, and in November, 1950, to those engaged in the Korea and Malaya Operations, and new benefits designed for the re-establishment of servicemen after discharge from the Forces were made available. The re-establishment benefits administered by the Repatriation Commission are:—payment of re-employment allowance while awaiting employment; provision of tools of trade and equipment where they are necessary to employment; transportation expenses to meet the cost of fares and removal of household belongings where an ex-serviceman takes up training, employment, or a business, or settles on the land; supplementing wages of apprentices whose apprenticeships were interrupted by war service; re-establishment loans to enable ex-servicemen and widows to establish themselves in business, practices or occupations, including (until the Division of War Service Land Settlement began operations early in 1946) agricultural occupations; payment of re-establishment allowance during the early stages of establishment in business; gifts up to

£75 for furniture to ex-servicemen who are blind or totally and permanently incapacitated, also to widows with children under 16 years of age; and free passages to Australia for wives, widows and children of ex-servicemen who married abroad (and passages outward from Australia in certain cases of ex-servicemen and dependants).

In 1949, the Department took over the functions of the Re-establishment Division of the former Department of Post-War Reconstruction, and became responsible for the co-ordination of all matters relating to training under the Commonwealth Reconstruction Training Scheme. This scheme is now concluded, the prescribed time limits for eligibility having expired. Re-establishment of the more seriously disabled, where ordinary training is not sufficient, continues to be a function of the Department, and special means have to be found to overcome each problem.

(ii) *General Repatriation Benefits.* The following table gives a summary of expenditure during the five years 1957–58 to 1961–62 on the more important general repatriation benefits for all wars.

#### EXPENDITURE ON GENERAL REPATRIATION BENEFITS: SUMMARY

(£)

Year ended 30th June—	Medical treatment	Employment and vocational training	Business loans and furniture	Soldiers' Children Education Scheme	Living allowances	Other benefits	Total
1958..	10,179,683	340,004	56,492	593,097	2,906,870	228,136	14,304,282
1959..	11,230,541	368,441	36,799	608,442	3,531,840	239,167	16,015,230
1960..	12,729,687	294,967	23,516	646,224	4,210,731	268,129	18,173,254
1961..	14,643,130	215,279	6,874	730,170	5,069,563	276,137	20,941,153
1962..	16,962,767	155,825	4,452	824,043	5,528,322	313,116	23,788,525

2. *Expenditure by the Repatriation Department, 1961–62.*—The net expenditure by the Department for the year ended 30th June, 1962, was £100,976,111 distributed as follows.

	£
Pensions, allowances and other benefits .. .. .	78,665,412
Treatment .. .. .	16,962,767
Administration .. .. .	3,962,568
Works, rent and maintenance .. .. .	1,385,364
	<b>100,976,111</b>

3. *Settlement of Returned Service Personnel on the Land.*—Reference to the settlement of returned service personnel on the land will be found in Chapter IV. Land Tenure and Settlement, pages 103–5 of this Year Book.

4. *The Services Canteens Trust Fund.*—(i) *General.* The Services Canteens Trust Fund was established under the *Services Trust Funds Act 1947*. Its funds are derived from the assets of wartime Services canteens, mess and regimental funds of disbanded units, the sale of amenities to the Forces from 1939 to 1943, and several other sources.

The total amount transferred to the Fund to 31st December, 1962, was £5,526,953. The Act prescribed that, of this, £2,500,000 and such further amounts as the trustees of the Fund might from time to time decide, should be devoted to the provision of education facilities for the children of eligible ex-service men and women, and that the balance of the Fund should be used to provide relief for ex-service men and women and their dependants in necessitous circumstances.

The Fund is administered by ten honorary trustees, appointed by the Governor-General. The trustees have power to determine the persons or groups of persons to benefit from the Fund and the extent of benefits to be granted within the provisions of the Act, and to appoint regional committees to assist with the administration. Members of regional committees are all persons who served in the 1939–45 War or are widows of men who served during the war. They serve in an honorary capacity.

(ii) *Assistance from the Fund.* (a) *General.* Persons eligible for assistance from the Fund are those who, between 30th September, 1939, and 30th June, 1947, served in the Australian Naval, Military or Air Forces, including members of the Canteens Staff of any ship of the Royal Australian Navy, persons duly accredited to any part of the Defence Force who served in an official capacity on full-time paid duty, and their dependants.

The trustees have introduced schemes for providing welfare relief for ex-service men and women who are eligible for benefits, and for their dependants; benefits for children of eligible ex-service men and women who are suffering from serious and incapacitating afflictions; and education benefits for the children of eligible ex-service men and women. From its inauguration in 1947, the Fund is to be available for 40 years for welfare relief and for 30 years for educational benefits.

(b) *Welfare Relief.* The trustees have prescribed a policy for welfare relief which makes assistance available only to those who are in genuine distress from which they cannot extricate themselves by their own efforts.

To 31st December, 1962, £1,302,960 had been granted as welfare relief from the Fund, £904,891 to ex-servicemen and their dependants, and £398,069 to widows and orphans. The amount granted during 1962 was £75,543. A total of 29,136 ex-service men and women and 11,915 widows and orphans were granted welfare assistance from the Fund to 31st December, 1962.

(c) *Assistance under Afflicted Children's Scheme.* The Fund assists dependent children suffering from afflictions which permanently disable or seriously retard their progress, or prevent the enjoyment of normal health and strength, and who face a prospect of dependence on others for all or part of their lives. The extent to which assistance will be granted in a particular case depends largely on the nature of the child's affliction, the facilities available, the family circumstances, and the funds that can be made available. Up to 31st December, 1962, 2,322 afflicted children had been assisted under the Afflicted Children's Scheme, involving an expenditure of £117,309.

(d) *Educational Assistance Scheme.* Educational assistance is restricted to children who are 15 years of age and over, except in exceptional circumstances. In the case of orphans, assistance may commence from the age of 12 years. The object is to assist eligible children to obtain the highest education within their capacity. Assistance is in the form of awards ranging from £5 to £200 a year depending on the cost of the course undertaken and the family circumstances. These awards are granted for practically every type of course of education, whether secondary, tertiary or commercial. They are designed to cover, or contribute towards, the cost of essential books, fees in cases where government school courses are not available, fares between the child's home and school, essential equipment and material, a uniform allowance in certain cases, and a maintenance allowance for the child while at school. Higher training education awards are provided for selected students for post-graduate study. Provision also exists for one post-graduate scholarship each year for study overseas, valued at £1,000 per annum for three years.

The number of children assisted under the educational scheme to 31st December, 1962, was 38,203, and the expenditure on educational awards, post-graduate scholarships and higher training education awards to 31st December, 1962, was £1,984,180.

## § 6. Seamen's War Pensions and Allowances

The *Seamen's War Pensions and Allowances Act* 1940 provided for the grant of pensions to Australian mariners (defined in the Act to cover *inter alia* persons employed in sea-going service on ships registered in Australia and engaged in trading, or on certain other ships owned in Australia and operating from Australian ports) who sustained injury through enemy action, and their dependants, and to the dependants of those who were killed by enemy action. Detention allowances were provided for Australian mariners who were captured, and their dependants, during the period of detention. Compensation to Australian mariners was provided in respect of personal effects lost or damaged through enemy action. Regulations passed in 1942 provided also for the continuance of wages for those captured by the enemy.

Amendments to the original Act and regulations raised pensions to rates corresponding to those payable under the *Repatriation Act* and made mariners eligible for general benefits on the same scale as those available under that Act.

Pensions payable at 30th June, 1962, numbered 246, comprising 60 to incapacitated mariners, 101 to their dependants, and 85 to the dependants of deceased mariners, and total expenditure during the year 1961-62 was £40,369, compared with £43,570 in 1960-61.

## CHAPTER XXVIII

### INTERNATIONAL RELATIONS

#### § 1. International Exchange of Representatives

**1. The Department of External Affairs.**—The Australian Department of External Affairs was first set up in 1901, the year of federation. It dealt with United Kingdom relations, the administration of Papua, matters arising out of Australia's position in the Pacific, and immigration. The original department was abolished in 1916, and re-established in 1921 to deal with League of Nations matters, under the direction of the Secretary of the Prime Minister's Department, who was also Secretary for External Affairs. In 1935, External Affairs was separated from the Prime Minister's Department and became an independent Department, but Australia had no direct diplomatic representation in foreign countries until 1940. The number of diplomatic officers has risen from five in 1935 to 205, including eight women, in 1963.

**2. Australian Missions Overseas.**—In May, 1963, Australia had diplomatic or consular representatives in 39 countries in addition to United Nations Missions in New York and Geneva. There is also an Australian Mission accredited to the European Economic Community in Brussels. An External Affairs Officer is attached to the Australian Government Trade Commission in Hong Kong.

The Department of External Affairs is responsible for all Missions overseas, except the High Commissioner's Office, London which is the responsibility of the Prime Minister's Department, the Trade Commissioner Service which is the responsibility of the Department of Trade, and the Australian Migration Mission in Austria which is the responsibility of the Department of Immigration.

The following list shows the addresses of the various Australian diplomatic and consular representatives overseas. Full details of permanent Australian missions overseas may be obtained from publications issued by the Department of External Affairs, Canberra.

#### AUSTRALIAN MISSIONS OVERSEAS

##### (i) *Embassies* (23)—

##### **Ambassador Extraordinary and Plenipotentiary to—**

*Argentina*—Calle Rivadavia 1829, Piso 5, Plaza San Martin, Buenos Aires.

*Belgium*—Boulevard Brand Whitlock, No. 4 Woluwe—St. Pierre, Brussels.

*Brazil*—Caixa Postal 251, Rio de Janeiro.

*Burma*—88 Strand Road, Rangoon.

*Cambodia*—94 Moha Vithei Preah, Norodom, Phnom Penh.

*France*—13 Rue Las Cases, Paris 7E.

*Germany, Federal Republic of\**—Kölner Strasse 157, Bad Godesburg, Bonn.

*Indonesia*—Pegangsaan Barat 14, Djakarta.

*Ireland*—33 Fitzwilliam Square, Dublin.

*Israel*—145 Hayarkon Street, Tel Aviv.

*Italy*—Via Sallustiana 26, Rome.

*Japan*—No. 9 Mita, Tsuna-Machi, Minato-ku, Tokyo.

*Korea*—32-10 Songwol-dong, Suda Moon-Koo, Seoul.

\* The Australian Ambassador is also head of the Australian Military Mission in Berlin.



*Laos*—Quartier Phone Xay, Vientiane.

*Nepal*—Theatre Communication Building, Connaught Place, New Delhi, India.

*The Netherlands*—18 Lange Voorhout, The Hague.

*The Philippines*—L & S Building, 1414 Dewey Boulevard, Manila.

*South Africa*—714 North Vaal, 227 Vermeulen Street, Pretoria.

*Thailand*—323 Silom Road, Bangkok.

*Union of Soviet Socialist Republics*—13 Kropotkinsky Pereulok, Moscow.

*United Arab Republic*—1097 Corniche el Nil, Garden City, Cairo.

*United States of America*—1700 Massachusetts Avenue, Washington, D.C.

*Vietnam*—Caravelle Building, Place Lam Son, Saigon.

(ii) *High Commissions* (10)—

**High Commissioner in—**

*Britain*\*—Australia House, The Strand, London, W.C.2.

*Canada*—Royal Bank Chambers, 100 Sparks Street, Ottawa.

*Ceylon*—3 Cambridge Place, Colombo.

*Ghana*—Ghana House, Accra.

*India*†—Theatre Communication Building, Connaught Place, New Delhi.

*Malaysia*—44 Ampang Road, Kuala Lumpur.

*Singapore Office*—MacDonald House, Orchard Road, Singapore 9.

*New Zealand*—Government Life Insurance Building, Customs House Quay, Wellington 4.

*Nigeria*—Investment House, 21/25 Broad Street, Lagos.

*Pakistan*—9 Kutchery Road, Karachi 4.

*Tanganyika*—Mercury House, Suliman ben Nassor Street, Dar-es-Salaam.

(iii) *Legations* (1)—

**Envoy Extraordinary and Minister Plenipotentiary to—**

*Sweden*—Sergels Torg 12, Stockholm C.

(iv) *Other* (11)—

**Military Mission in—**

*Germany, Federal Republic of*—Olympia Stadium, Charlottenburg 9, Berlin.

**Mission to—**

*European Economic Community*—Head, Sir Edwin McCarthy, C.B.E. (resident in London).

*United Nations* (New York)—750 Third Avenue, New York 17, N.Y.

*United Nations* (Geneva)—254 route de Lausanne, Pregny, Geneva.

**Consul-General in—**

*Greece*—15 Valaoritou Street, Athens.

*Switzerland*—254 route de Lausanne, Pregny, Geneva.

*United States of America* (New York)—International Building, 636 Fifth Avenue, New York 20, N.Y.

*United States of America* (San Francisco)—Qantas Building, 350 Post Street, Union Square, San Francisco, Cal.

**Consul in—**

*Denmark*—Norrevold 68, Copenhagen.

*New Caledonia*—45 Tce. Rue du Verdun, Noumea.

*Portuguese Timor*—Dili.

\* Administered by Prime Minister's Department.

† The Australian High Commissioner in India is currently Ambassador to Nepal.

3. **Diplomatic Representatives in Australia.**—There are 32 non-Commonwealth and eight Commonwealth countries represented by diplomatic missions in Australia.

The following list shows the addresses of the overseas representatives in Australia. Full details of Commonwealth and foreign representation in Australia may be obtained from publications issued by the Department of External Affairs, Canberra. Consular representatives are not included. Particulars of these are contained in a publication *Consular Representatives and Trade Commissioners in Australia*, issued by the Department of External Affairs, Canberra. There are more than 180 such representatives in Australia, and 53 countries are represented.

#### DIPLOMATIC REPRESENTATIVES IN AUSTRALIA

##### (i) *Embassies* (25)—

###### Ambassador Extraordinary and Plenipotentiary of—

- Argentina*—5a Arkana Street, Yarralumla, Canberra, A.C.T.
- Belgium*—19 Arkana Street, Yarralumla, Canberra, A.C.T.
- Brazil*—31 Jardine Street, Kingston, Canberra, A.C.T.
- Burma*—85 Mugga Way, Red Hill, Canberra, A.C.T.
- Cambodia*—5 Canterbury Crescent, Deakin, Canberra, A.C.T.
- China*—58 Captain Cook Crescent, Griffith, Canberra, A.C.T.
- France*—6 Darwin Avenue, Acton, Canberra, A.C.T.
- Germany, Federal Republic of*—Empire Circuit, Yarralumla, Canberra, A.C.T.
- Greece*—22 Arthur Circle, Forrest, Canberra, A.C.T.
- Indonesia*—4 Hotham Crescent, Deakin, Canberra, A.C.T.
- Ireland*—Ainslie Building, 39 Ainslie Avenue, Civic Centre, Canberra, A.C.T.
- Israel*—Turrana Street, Yarralumla, Canberra, A.C.T.
- Italy*—27 State Circle, Deakin, Canberra, A.C.T.
- Japan*—3 Tennyson Crescent, Forrest, Canberra, A.C.T.
- Korea*—50 Darling Point Road, Darling Point, N.S.W.
- The Netherlands*—120 Empire Circuit, Yarralumla, Canberra, A.C.T.
- The Philippines*—1 Arkana Street, Yarralumla, Canberra, A.C.T.
- Portugal*—22 Bougainville Street, Manuka, Canberra, A.C.T.
- South Africa*—Green Square, Jardine Street, Kingston, Canberra, A.C.T.
- Switzerland*—37 Stonehaven Crescent, Deakin, Canberra, A.C.T.
- Thailand*—1 Fraser Place, Yarralumla, Canberra, A.C.T.
- Union of Soviet Socialist Republics*—78 Canberra Avenue, Griffith, Canberra, A.C.T.
- United Arab Republic*—83 Endeavour Street, Red Hill, Canberra, A.C.T.
- United States of America*—Yarralumla, Canberra, A.C.T.
- Vietnam*—39 National Circuit, Forrest, Canberra, A.C.T.

##### (ii) *High Commissioners* (7)—

###### High Commissioners for—

- Britain*—Commonwealth Avenue, Canberra, A.C.T.
- Canada*—Commonwealth Avenue, Canberra, A.C.T.
- Ceylon*—35 Empire Circuit, Forrest, Canberra, A.C.T.
- India*—63 Mugga Way, Red Hill, Canberra, A.C.T.
- Malaysia*—71 State Circle, Acton, Canberra, A.C.T.
- New Zealand*—M.L.C. Building, London Circuit, Civic Centre, Canberra, A.C.T.
- Pakistan*—Jardine Street, Kingston, Canberra, A.C.T.

(iii) *Legations (7)*—**Envoy Extraordinary and Minister Plenipotentiary of—***Austria*—Ainslie Building, 39 Ainslie Avenue, Civic Centre, Canberra, A.C.T.*Chile*—3 Aston Gardens, Bellevue Hill, Sydney, N.S.W.*Denmark*—115 Pitt Street, Sydney, N.S.W.*Finland*—537 New South Head Road, Double Bay, Sydney, N.S.W.*Peru*—7 Blaxland Crescent, Griffith, A.C.T.*Sweden*—Turrana Street, Yarralumla, Canberra, A.C.T.*Uruguay*—55 Mugga Way, Red Hill, Canberra, A.C.T.(iv) *Other (1)*—**Commissioner for—***Malta*—31 Clowes Street, South Yarra, Melbourne, Vic.

4. **Oversea Publicity.**—An Australian News and Information Bureau was established by Cabinet in March, 1950, to take over the functions previously carried out by the wartime Department of Information. The Bureau's principal functions are to make Australia more widely and favourably known overseas, to help other countries understand Australia's outlook, endeavours and potentialities and to foster good relationships in all Australian dealings with other countries. Its overseas organization consists of Bureaux in London and New York, Information Attaché posts at Australian diplomatic missions in The Hague, Bonn, New Delhi, Karachi, Djakarta, Singapore, Kuala Lumpur and Bangkok, and an Assistant Trade Commissioner (Public Relations) at Singapore. The Bureau provides a service of publicity material to all these officers and also to other Australian diplomatic, trade and migration missions abroad. In addition, it provides, on secondment to the Department of External Affairs, a Press Attaché at the Australian Embassy in Washington.

5. **The Trade Commissioner Service.**—The Department of Trade maintains Trade Commissioners in 27 countries. The first permanent Trade Commissioner Post was set up in Canada in 1929. Before that, Australia's only official trade representatives abroad were in the High Commission Office in London and at the Office of the Commissioner General for Australia in New York. By May, 1963, Trade Commissioners were established at the following posts: United States of America—New York, Chicago, Washington and San Francisco; Canada—Vancouver, Ottawa and Montreal; West Indies—Trinidad; Britain and Europe—London, Athens, Paris, Bonn, Stockholm and Rome; Africa—Accra, Nairobi, Salisbury and Johannesburg; United Arab Republic—Cairo; Lebanon—Beirut; India—New Delhi, Bombay and Calcutta; Ceylon—Colombo; South-East Asia—Singapore, Djakarta, Kuala Lumpur, Bangkok and Hong Kong; Japan—Tokyo; New Zealand—Wellington, Christchurch and Auckland; Philippines—Manila; Pakistan—Karachi; South America—Caracas and Lima. Twenty-eight editions of the Department of Trade's promotion periodical "Austral News" now circulate in 80 countries. (*See also* Australian Trade Missions, § 4 of Chapter XIII. Oversea Trade, p. 544.)

The addresses of Australian Trade Commissioner Posts overseas, and of Trade Commissioners of overseas Governments in Australia, are shown in the following lists.

(i) *Trade Commissioner Service of the Commonwealth of Australia in—**Britain*—Australia House, The Strand, London, W.C.2.*Canada*—Phillips Square Building, 1255 Phillips Square, Montreal, P.Q.; Burrard Building, 1030W Georgia Street, Vancouver 5, B.C.; Royal Bank Chambers, 90 Sparks Street, Ottawa.*Ceylon*—3 Cambridge Place, Colombo.*France*—2nd Floor, 26 Rue de la Pepiniere, Paris. 8E.*Germany, Federal Republic of*—Kolner Strasse 157, Bad Godesberg, Bonn.*Ghana*—Barclay's Bank Building, High Street, Accra.*Greece*—15 Valaoritu Street, Athens.*Hong Kong*—Union House, Connaught Road Central, Hong Kong.

*India*—Mercantile Bank Building, 52 Mahatma Gandhi Road, Bombay 1; 2 Fairlie Place, Calcutta 1; 34 Golf Links Road, New Delhi.

*Indonesia*—Djalon Nusantara 39, Djakarta.

*Italy*—Via Sallustiana, 26, Rome.

*Japan*—Masonic Building, 13 Sakae-che, Shiba, Minato-ku, Tokyo.

*Kenya*—Silo Park House, Queensway, Nairobi.

*Lebanon*—L'Union de Paris Building, Rue Maamari, Beirut.

*Malaysia*—44 Ampang Road, Kuala Lumpur.

*New Zealand*—London and Lancashire Building, 56 Shortland Street, Auckland; Phoenix Building, 91 Worcester Street, Christchurch; Government Life Insurance Building, Customs House Quay, Wellington.

*Pakistan*—9 Kutchery Road, Karachi 4.

*Peru*—Monterosa Buildings, Jiron Arica 837, Lima.

*The Philippines*—L. & S. Building, 1414 Dewey Boulevard, Manila.

*Rhodesia and Nyasaland, Federation of*—Central Africa House, Cnr. First Street and Gordon Avenue, Salisbury.

*Singapore*—MacDonald House, Orchard Road, Singapore 9.

*South Africa*—Cavendish Chambers, Jeppe and Kruis Streets, Johannesburg.

*Sweden*—Sergels Torg 12, Stockholm 40.

*Thailand*—323 Silom Road, Bangkok.

*United Arab Republic*—1097 Corniche el Nil, Garden City, Cairo.

*United States of America*—3148 Cleveland Avenue, N.W., Washington, D.C.; International Building, 636 Fifth Avenue, New York 20, N.Y.; Qantas Building, 350 Post Street, Union Square, San Francisco, Cal.; 6 North Michigan Avenue, Chicago 2, Ill.

*Venezuela*—Apartado 6481, Caracas.

*West Indies, Federation of*—72-74 South Quay, Port of Spain, Trinidad.

(ii) *Trade Correspondents and Marketing Officers*—

Australian Trade Correspondents and Marketing Officers have no official status but supplement the work of the Trade Commissioner Service. Correspondents are located in Suva, Fiji; Taipei, Taiwan; Honolulu, Hawaii; Valletta, Malta; Curepipe, Mauritius; Mexico City, Mexico; Montevideo, Uruguay; Madrid, Spain; and Istanbul, Turkey. Marketing Officers are located in Rangoon, Burma; Port Louis, Mauritius; and Los Angeles, U.S.A.

(iii) *Trade Commissioners of Oversea Governments in Australia*—

*Britain*—Senior British Trade Commissioner—Commonwealth Avenue, Canberra, A.C.T.

British Trade Commissioners—Assurance House, 16-20 Bridge Street, Sydney, N.S.W.; 224 Queen Street, Melbourne, Vic.; M.L.C. Building, Cnr. Adelaide and Edward Streets, Brisbane, Qld.; F.C.A. Building, Franklin Street, Adelaide, S.A.; Prudential Building, 189 St. George's Terrace, Perth, W.A.

*Canada*—Canadian Trade Commissioners—A.M.P. Building, Circular Quay, Sydney, N.S.W.; 2 City Road, South Melbourne, Vic.

*Ceylon*—Ceylon Trade Commissioner—The Wales House, 66 Pitt Street, Sydney, N.S.W.

*India*—Indian Trade Commissioner—Caltex House, 167-187 Kent Street, Sydney, N.S.W.

*Malaya*—Malayan Trade Commissioner—71 State Circle, Acton, A.C.T.

*New Zealand*—Senior New Zealand Trade Commissioner—14 Martin Place, Sydney, N.S.W.

New Zealand Government Trade Commissioner—428 Collins Street, Melbourne, Vic.

6. **Specialist Attachés and Missions.**—The Department of Immigration has Missions or officers in Austria, Britain, Belgium, Denmark, France, Greece, Hong Kong, Italy, The Netherlands, Spain, Sweden, United Arab Republic and West Germany. There are Joint Service Staff Missions in London and Washington, and Armed Service Attachés at a number of other diplomatic posts. There is a Scientific Attaché in Washington and specialist officers from other Commonwealth Government Departments are attached to Australian diplomatic missions when necessary.

7. **Agents-General for States.**—From early times, the Australian colonies maintained agents in London to encourage immigration and to carry out commercial and financial negotiations. Since federation, the States have continued to maintain Agents-General in London, all of whom work in close co-operation with the High Commissioner for Australia at Australia House, The Strand, London. The addresses of these Agents-General are as follows:—*New South Wales.*—56–57 Strand, London, W.C.2. *Victoria.*—Victoria House, Melbourne Place, Strand, London, W.C.2. *Queensland.*—Marble Hall, 409–10 Strand, London, W.C.2. *South Australia.*—South Australia House, 50 Strand, London, W.C.2. *Western Australia.*—Savoy House, 115 Strand, London, W.C.2. *Tasmania.*—457 Strand, Charing Cross, London, W.C.2.

## § 2. Australian Participation in United Nations

Australia played an active part in drafting the Charter of the United Nations at the Conference on International Organization in San Francisco in 1945 and has been a consistent supporter of the principles and objectives of the United Nations since its foundation. Australia's influence in the affairs of the United Nations has been exerted primarily through the annual debates in the General Assembly, through membership of the Security Council (1946–47 and 1956–57), the Economic and Social Council (1948–50, 1953–55 and for a three-year term from 1st January, 1962), and through the Trusteeship Council. By virtue of responsibilities for administration of the Trust Territories of Nauru and New Guinea, Australia has been a member of the Trusteeship Council since it was established. Australia has also been a member of a number of important subsidiary bodies. In 1961, Australia was appointed a member of the Committee of Twenty-four—a committee established by the General Assembly to implement Resolution 1514 (XV), the declaration on the granting of independence to colonial countries and peoples.

An Australian was elected President of the General Assembly in 1948 and Australia has held a Vice-Presidency on three occasions—the Fifth (1950), Thirteenth (1958) and Seventeenth Sessions. An Australian was chairman of the Second (Economic) Committee of the General Assembly in 1954 and President of the Economic and Social Council in 1955. In 1957, Sir Percy Spender was elected to the International Court of Justice.

In 1947, Australian representatives served on two United Nations investigatory bodies set up to inquire into situations involving threats to the peace. One Commission was directed by the Security Council to investigate alleged violations of Greece's frontiers by her northern neighbours and the other was established by the General Assembly to investigate the Palestine problem. In 1948 and 1949, Australia served on the United Nations Good Offices Committee (later renamed the United Nations Commission for Indonesia) and played a prominent role in the negotiation of a settlement between the Netherlands and the Republic of Indonesia.

In 1950, Australia joined 15 other member States in answering the Security Council's call to help the Republic of Korea to repel Communist aggression from the north. Both earlier and subsequently, Australia played a prominent part on successive commissions established by the United Nations in an attempt to unify Korea through nation-wide free elections. Australia remains an active member of the United Nations Commission for the Unification and Rehabilitation of Korea (UNCURK), which has its head-quarters at the Korean capital, Seoul.

In several other trouble spots, Australia is also helping the United Nations in its constructive and stabilizing task. In Kashmir, where fighting broke out between India and Pakistan in 1947, there are a number of Australian Army Officers serving as military observers with a United Nations group charged with the supervision of the cease-fire line. An Australian has for some time been Chief Military Observer, and another served for a period as mediator on behalf of the United Nations. Australian Army officers are attached to the United Nations Truce Supervision Organisation (UNTSO), which was set up to help keep the peace between the Arab States and Israel after the outbreak of hostilities between them in 1948.

In addition to paying its share of the costs of the Congo operation, the Australian Government has contributed \$750,000 towards the United Nations Fund for the Congo and £19,000 towards the costs of sending two Australian Red Cross medical teams to the Congo. Australia has also bought \$4 million of United Nations bonds, the proceeds of which will go towards meeting the costs of the Congo operation. Two Australian officers serving with UNTSO were temporarily seconded to serve with the United Nations force in the Congo.

Australia was a member of the Security Council when it was urgently convened on 28th October, 1956, to consider the Hungarian uprising and the intervention of the Soviet Union to suppress it. In January, 1957, a five-member Special Committee on the Problem of Hungary was established by the General Assembly. The Australian Ambassador to the Philippines was a member of this Committee and was appointed rapporteur. The Australian Government assisted the United Nations cause by accepting large numbers of Hungarian refugees and helped the Special Committee by having inquiries conducted among the refugees in Australia on matters of concern to it.

In July, 1958, following the report of the Committee on the executions of Nagy and some of his associates, the Assembly adopted an Australian proposal that the Hungarian question be inscribed on the agenda of the 13th (1958) regular session of the General Assembly. Australia has since supported consideration of the Hungarian question at each subsequent session of the General Assembly.

The Australian Government has participated actively in United Nations deliberations on disarmament, and has been a member of the United Nations Disarmament Commission since 1958. Australia is also closely concerned with the possibilities of international co-operation in the peaceful uses of outer space to ensure that all mankind shares the potential benefits of its exploitation. Australia's capacity to make a worthwhile contribution has been shown by experience in rocketry and related subjects and by the practical results obtained in Australia in the tracking of satellites launched by the U.S.S.R. and by the United States of America. This was recognized by the Assembly's inclusion of Australia in the United Nations Committee on the Peaceful Uses of Outer Space, established at the General Assembly in 1958. In 1962, an Australian was elected Chairman of the Scientific and Technical Sub-Committee of the Committee on the Peaceful Uses of Outer Space.

In the economic, social and cultural sphere, Australia has contributed to the work of the United Nations through membership of all its specialized agencies and of the Economic and Social Council. Australia is a foundation member of one of the four regional economic commissions, the Economic Commission for Asia and the Far East, and the fourth and 15th sessions of ECAFE were held in Australia.

Australia has had varying periods of service as a member of the executive bodies of the following specialized agencies—the Food and Agriculture Organization (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Labour Organisation (ILO), the World Health Organization (WHO), the World Meteorological Organization (WMO), the International Civil Aviation Organization (ICAO), the International Bank, the International Monetary Fund, the Inter-Governmental Maritime Consultative Organization, the Universal Postal Union (UPU), and the International Telecommunication Union (ITU).

As a leading agricultural country, Australia played a big part in the establishment of FAO and an Australian was independent chairman of the Council of the Organization from 1947 to 1951. From 1947 until 1957 and from 1961 until the end of 1963, Australia was a member of the FAO Council.

Australia is a member of the Board of Governors of the International Atomic Energy Agency, which is concerned with the peaceful uses of atomic energy. Australia is also a member of the United Nations Scientific Committee set up to investigate the effects of atomic radiation. At the 13th (1958) General Assembly, the Australian Minister for External Affairs proposed a unanimously approved resolution calling for the co-ordination, application and dissemination of the results of scientific research. Since then, UNESCO has reported to the Economic and Social Council the results of its world-wide survey of major trends in scientific research for peaceful purposes conducted under the terms of the Australian resolution and, upon the recommendation of his Scientific Advisory Committee, the Secretary-General convened in February, 1963, a Conference on the application of science and technology for the benefit of the less developed areas.

Australia has been represented on the functional commissions of the Economic and Social Council, which have responsibilities in various defined fields of social and economic activity. Australia has been represented on the Statistical Commission (1952-57 and 1960-63), the Commission on Human Rights (1947-56), the Social Commission (1950-52, 1954-56, 1958-61), the Commission on the Status of Women (1947-51, 1955-57, 1961-63), the Population Commission (1947-49 and 1952-53), and the Commission on International Commodity Trade (1955-60, 1962-64).

Australia's contributions towards various forms of international aid through the United Nations and other international organizations for 1962-63 amounted to a little more than \$13,000,000. In 1962-63, Australia made a cash grant of £20 million for the development of Papua and New Guinea.

The Australian Government has contributed £2,925,232 to the United Nations Expanded Programme of Technical Assistance from the inception of the Programme in 1950 up to June, 1962. This was spent on the provision of experts, training, supplies, and equipment to under-developed countries, and supplemented Australian aid under the Technical Co-operation Scheme of the Colombo Plan.

Australian experts sent abroad under the United Nations Technical Assistance programme up to December 31, 1961, totalled 234. Nineteen experts were appointed in 1961. A total of 428 U.N. trainees had come to Australia up to December 31, 1961. Sixty trainees arrived during 1961.

Other contributions by Australia (as at June, 1962) have included £22,522,000 to the United Nations Relief and Rehabilitation Administration (UNRRA), £3,297,056 to the International Refugee Organization, £1,830,000 to Post-UNRRA Relief; £6,067,993 for food and medical supplies to the United Nations Children's Fund (UNICEF), which has been helping the under-privileged children of the world since its establishment in 1946; £1,799,000 of essential supplies to the United Nations Korean Reconstruction Agency; £1,299,999 of supplies to the United Nations Relief and Works Agency for Palestine refugees; £478,950 for the programmes of the United Nations High Commissioner for Refugees; £155,000 for the relief of Hungarian refugees; £47,500 for the WHO Malaria Eradication Special Account and £201,600 to the World Food Programme. Australia's assistance to the United Nations Children's Fund was recognized by the election of an Australian as chairman of the Executive Board for 1959. Australia was a member of the Board from 1947 to 1961.

Australia has also contributed £214,985 to the Intergovernmental Committee for European Migration's programme for providing transportation from Hong Kong to countries of resettlement for refugees of European origin coming out of Mainland China.

In addition, Australia has made significant contributions to the development funds of international financial institutions; to June, 1963, these amounted to £21,255,000 to the International Bank for Reconstruction and Development, £989,000 to the International Finance Corporation, and £3,255,000 to the International Development Association.

In connexion with the United Nations-sponsored World Refugee Year in 1959, the Australian Government made a contribution of £50,000, and various voluntary organizations and private companies, including the United Nations Association of Australia and the Australian Red Cross Society, raised more than £700,000 for this appeal.

The Australian delegation to the United Nations Conference on the Law of the Sea in 1958 was led by the Commonwealth Solicitor-General. The Conference adopted four conventions dealing with—(i) the territorial sea and the contiguous zone; (ii) the high seas; (iii) fishing and conservation of the living resources of the high seas, and (iv) the continental shelf. These conventions were open for acceptance by States. Each will come into force when it has been accepted by 22 States. No decision was reached on the important question

of the breadth of the territorial sea and the exclusive rights of coastal states over fishing in the zone of the high seas adjacent to their territorial sea. The Convention on the Continental Shelf had the effect of endorsing Australia's claims over its continental shelf and the natural resources of the shelf, as made in a Proclamation of September 11, 1953. It recognizes that a coastal state may exercise sovereign rights over the shelf for the purpose of exploring it and exploiting its natural resources.

Australia served as a member of the Governing Body of the International Labour Organisation, either as a Titular Government member, or as a Deputy member, from 1945 to 1960, and has been represented by Government delegates and by the delegates nominated by workers' and employers' organizations on the I.L.O. Industrial Committees dealing with the special problems of the industries of major importance to this country, including the Textiles Committee and the Metal Trades Committee. At the 47th Session of the International Conference in 1963, Australia was elected to the Governing Body as a Titular Government member for a three year term.

Australia has also been a prominent member of I.C.A.O. since its inception and at the last I.C.A.O. Conference (1962) was re-elected to the I.C.A.O. Council as one of the nine States of principal civil aviation importance.

### § 3. Commonwealth Relations

Australia is a fully self-governing member of the Commonwealth of Nations with allegiance to Queen Elizabeth II as Sovereign and Head of the Commonwealth, is represented at meetings of Commonwealth Prime Ministers, is a member of the Commonwealth Economic Consultative Council, belongs to the Sterling Area, retains, with limitations, the system of judicial appeal to the Privy Council, and maintains High Commissioners in the majority of other Commonwealth countries.

So far as Australia is concerned, Queen Elizabeth II is not only Head of the Commonwealth but a constitutional sovereign represented by a Governor-General appointed by her on the advice of the Australian Government.

The Australian Prime Minister regularly attends meetings of Commonwealth Prime Ministers in London.

Between meetings of Commonwealth Prime Ministers, the Australian Prime Minister has full constitutional authority to consult with other Commonwealth Prime Ministers on any subject. In addition, there is a constant flow of messages between the Australian Government and governments of other Commonwealth countries. In this process of inter-Commonwealth consultation, High Commissioners are the normal agents.

Australia is regularly represented at meetings of Commonwealth Finance and Foreign Ministers and at Commonwealth Trade and Education meetings.

In defence matters, Australian armed services send representatives to discussions by Commonwealth Chiefs of Staff, Australian naval ships take part in combined exercises with the navies of other Commonwealth members, and Australian officers maintain liaison with the service of other Commonwealth countries.

Australia or Australians also take an active interest in the many semi-official and unofficial bodies which exist to foster and strengthen Commonwealth bonds, such as the Commonwealth Parliamentary Association, the Association of Universities of the British Commonwealth, the Commonwealth Press Union, the Royal Commonwealth Society and similar organizations.

### § 4. The Colombo Plan

1. *General.*—The Colombo Plan originated at a meeting of Commonwealth Foreign Ministers in Colombo in January, 1950. The meeting set up a Consultative Committee for co-operative Economic Development in South and South-East Asia. The task of this Committee was to devise the most effective means of tackling the problems of economic development in the area and of focusing world attention on them.



The original participants in the Plan were Australia, Canada, Ceylon, India, New Zealand, Pakistan, and the United Kingdom, with the United Kingdom territories in South and South-East Asia—all members of the Commonwealth of Nations. It was not, however, initiated as an exclusively Commonwealth venture; invitations were issued to the non-Commonwealth countries in the area to join, and it was hoped that Governments of countries outside the area, who could make valuable contributions to the Plan's objectives, would also participate. The United States joined in 1951 and it was available to other countries to enter on equal terms with those already participating.

Those which subsequently entered were Burma, Cambodia, Indonesia, Japan, Laos, Nepal, the Philippines, Thailand, Viet Nam, Korea and Bhutan. The Plan thus took in virtually all the countries constituting what is known as South and South-East Asia.

The Plan may be divided into two sections: Technical Co-operation and Economic Development.

2. **Technical Co-operation.**—The table below summarizes the value of aid provided under the Technical Co-operation Scheme to individual countries by Australia up to 31st December, 1962.

**AUSTRALIA: VALUE OF TECHNICAL AID PROVIDED UNDER COLOMBO PLAN TO DECEMBER, 1962**

(£)

Country	Training	Experts	Equipment	Total
Brunei .. ..	24,476	523	..	24,999
Burma .. ..	529,953	47,981	174,374	752,308
Cambodia .. ..	28,823	75,747	69,436	174,006
Ceylon .. ..	321,595	185,243	140,827	647,665
India .. ..	644,938	58,875	208,474	912,287
Indonesia .. ..	1,507,178	380,111	226,230	2,113,519
Laos .. ..	19,707	23,342	54,779	97,828
Malaya .. ..	925,103	322,413	119,959	1,367,475
Nepal .. ..	39,919	24,638	1,390	65,947
North Borneo .. ..	317,678	61,767	75,362	454,807
Pakistan .. ..	478,238	211,344	205,660	895,242
Philippines .. ..	350,812	45,376	144,629	540,817
Sarawak .. ..	257,523	112,215	66,222	435,960
Singapore .. ..	473,628	174,270	79,057	726,955
Thailand .. ..	450,925	47,756	182,300	680,981
Viet Nam .. ..	255,711	138,083	205,773	599,567
<b>Total .. ..</b>	<b>6,626,207</b>	<b>1,909,684</b>	<b>1,954,472</b>	<b>(a) 10,490,363</b>

(a) In addition, £200,000 was spent on the Mekong Regional Project, and miscellaneous expenditure amounted to £241,572.

The amounts under the heading "Equipment" refer to the supply of equipment for education and research: books, tools, instruments, radios, and audio-visual teaching aids. Special items such as medical equipment for many countries, wool-testing equipment for India and equipment for the establishment of an experimental dairy farm at Ben Cat in Vietnam are also included.

3. **Training.**—From the commencement of the Plan until December, 1961, Australia has granted 3,816 training awards. In addition, more than 15,000 private students from Asian countries had received training in Australia.

The fields of training and the numbers involved from each country from the beginning of the Plan until 31st December, 1962, are shown in the following table.

**AUSTRALIA: NUMBER OF TRAINEES UNDER COLOMBO PLAN FROM EACH COUNTRY, BY FIELD OF TRAINING, TO DECEMBER, 1962**

Type of training	Brunei	Burma	Cambodia	Ceylon	India	Indonesia	Laos	Malaya	Nepal	North Borneo	Pakistan	Philippines	Sarawak	Singapore	Thailand	Viet Nam	Total
Accountancy .. .. .	11	1	1	3	35	1	7	1	24	25	15	2	3	7	56		
Agriculture .. .. .	2	15	19	86	30	1	7	1	4	8	1	12	10	2	250		
Architecture .. .. .	1	6	21	4	45	89	85	46	17	110	483	649	102	64	129		
Arts .. .. .	5	6	20	12	16	3	10	2	11	1	7	17	11	22	110		
Aviation .. .. .	1	5	12	8	25	3	1	1	1	3	10	2	11	2	85		
Banking, insurance and finance .. .. .	10	14	1	8	1	1	1	2	1	1	3	9	1	7	17		
Dentistry .. .. .	2	1	1	3	1	1	1	2	1	1	2	1	7	1	46		
Economics .. .. .	5	3	51	1	4	1	1	1	1	1	1	2	18	22	110		
Education .. .. .	2	30	9	61	6	159	1	39	1	18	8	23	21	23	55		
Engineering .. .. .	6	31	2	14	115	178	79	10	18	38	18	14	56	25	45		
Food technology .. .. .	2	9	20	16	1	1	1	1	1	42	7	3	1	1	102		
Forestry and forest products .. .. .	22	4	6	1	9	1	1	3	5	7	3	1	1	1	64		
Industry .. .. .	14	10	67	8	9	1	1	1	1	17	4	8	5	8	129		
Journalism, films and broadcasting .. .. .	1	6	10	1	6	9	1	1	1	1	14	8	5	8	5		
Labour .. .. .	9	4	6	6	7	7	1	1	1	1	1	1	1	1	33		
Libraries .. .. .	3	4	6	7	1	1	1	1	1	1	1	1	1	1	36		
Livestock .. .. .	2	5	43	1	3	1	1	1	1	1	9	11	3	1	76		
Medicine and health .. .. .	1	17	3	10	17	16	41	2	23	17	31	15	34	38	5		
Meteorology .. .. .	1	1	2	3	1	1	1	1	1	1	2	7	2	1	18		
Mining and mineral research .. .. .	83	2	14	22	1	1	1	1	1	4	2	1	14	3	146		
Nursing .. .. .	12	24	51	6	152	6	6	17	13	16	25	2	330	64	47		
Police and legal .. .. .	7	6	3	2	2	2	2	4	8	14	4	1	9	2	64		
Printing .. .. .	11	1	29	4	1	1	1	1	1	1	1	1	1	1	47		
Public administration (general) .. .. .	3	20	4	74	1	39	27	57	10	18	23	6	282	100	261		
Public administration (specialized) .. .. .	2	19	2	7	4	1	19	10	11	6	12	7	3	9	2		
Science .. .. .	17	9	28	38	78	1	7	18	20	10	8	24	3	261	321		
Social studies .. .. .	5	14	5	20	2	4	1	1	1	1	1	1	1	1	38		
Surveying .. .. .	1	3	1	2	4	1	1	1	1	1	1	1	1	1	46		
Textiles .. .. .	1	3	10	4	1	1	1	1	1	1	1	1	1	1	34		
Trade .. .. .	2	3	5	8	1	1	1	1	1	1	1	1	1	1	31		
Transport .. .. .	5	1	6	11	17	1	2	10	6	2	2	2	2	2	998		
Veterinary science .. .. .	1	6	7	10	8	11	1	4	6	2	2	2	2	2	103		
Wireless .. .. .	1	6	7	10	8	11	1	4	6	2	2	2	2	2	103		
Total in Training .. .. .	2	41	12	24	61	230	1	208	12	64	40	33	50	51	83		
Total Completed .. .. .	17,335	9	246	471	571	9,367	14	98	316	251	106	186	214	67	3,277		
Grand Total .. .. .	19,376	21	270	532	801	10,575	26	162	356	284	156	237	297	153	4,275		

4. Experts.—In the field of health, the main emphasis has been on combating tuberculosis. Australia has provided a Tutor Sister and six Sisters for the T.B. Nurses' Training School at Welisara, Ceylon, a nursing staff of some 40 for the Lady Templer Tuberculosis Hospital at Kuala Lumpur, ten Red Cross nurses and welfare workers for Malaya, and an anti-T.B. team comprising one doctor, two nurses, two laboratory assistants, and one technician for North Borneo. Two occupational therapists and two physiotherapists have gone to Ceylon and Indonesia. In addition, equipment and instruction have been provided for an Artificial Limb Centre at the National Orthopaedic Hospital, Manila.

Australian medical specialists and their assistants have visited Burma, India, Pakistan, Malaya, Indonesia, Ceylon, the Philippines, Thailand and Singapore, conducting surveys and giving demonstrations and lectures. The Royal Australian College of Surgeons has held Primary Fellowship examinations in Singapore in 1957, 1958 and 1961, with the Colombo Plan financing the visits of examiners, and of instructors to give preparatory courses.

In the field of agriculture, Australia's largest contributions have been in the Commonwealth Livestock Development and Research Farm in the Thal region of Pakistan, and an experimental dairy farm at Ben Cat in Vietnam.

In engineering, Australian visiting experts have been concerned largely with instruction in the operation and maintenance of equipment which has been supplied under the economic development programme. Australia has sent six tractor technicians to Pakistan, five to Ceylon, one to Cambodia, Laos and Vietnam, and seven bus technicians and administrators to Indonesia. Ten instructors were provided for a printing school in Indonesia, and instructors in bricklaying, carpentry, building trades and motor mechanics for Malaya.

The following is a summarized list of Australian Colombo Plan experts provided as at 31st December, 1962.

**AUSTRALIA: EXPERTS PROVIDED UNDER COLOMBO PLAN TO  
DECEMBER, 1962**

Country	On assignment	Completed	Total
Brunei .. .. .	..	1	1
Burma .. .. .	2	12	14
Cambodia .. .. .	..	11	11
Ceylon .. .. .	..	56	56
India .. .. .	..	21	21
Indonesia .. .. .	11	34	45
Laos .. .. .	..	6	6
Malaya .. .. .	8	90	98
Nepal .. .. .	..	3	3
North Borneo .. .. .	1	22	23
Pakistan .. .. .	..	50	50
Philippines .. .. .	2	22	24
Sarawak .. .. .	9	17	26
Singapore .. .. .	6	56	62
Thailand .. .. .	1	24	25
Vietnam .. .. .	2	18	20
Regional (Mekong Project) .. .. .	9	15	24
<b>Total .. .. .</b>	<b>51</b>	<b>458</b>	<b>509</b>

At 30th June, 1963, 71 experts were in the field and 479 assignments had been completed. In addition, by 30th June, 1963, Australia had provided 108 advisers to Colombo Plan countries, and one adviser was still in the field.

**5. Correspondence Scholarships.**—In April, 1955, correspondence courses for rural and clerical occupations, trades and professions were offered to the nominees of the Colombo Plan Governments. At 31st December, 1962, 11 countries were participating and 3,150 trainees were enrolled for correspondence courses under this scheme.

Trades courses offered include a preparatory trade course, fitting and machining, blacksmithing, automotive mechanics, sheet metallurgy, boilermaking, electrical fitting, electrical mechanics, automotive electrical, electrical refrigeration, carpentry, plumbing, house painting and decorating, hand composing, linotype composing, letterpress machining, bookbinding, radio mechanics and retail distributing. There is also a course of teaching methods for technical instructors.

The professional courses available in the technical fields now comprise architecture, building construction, radiography, land surveying, and engineering (civil, aeronautical, automotive, chemical, electrical, mechanical, metallurgical, mining and production).

Clerical and accounting courses available include shorthand, typewriting, bookkeeping, business principles and commercial correspondence, and accounting (syllabus of Australian Society of Accountants). A course in office practice was added in 1956 at the request of Asian countries.

Academic courses offered include Pure Mathematics I, Economics I, Statistics, Education I, English Literature I, History I, and Philosophy I.

Rural courses include agriculture, animal husbandry, farm mechanics, farm management and economics.

6. **Economic Development.**—The following table shows Australia's contribution to individual countries in respect of economic development as at 31st December, 1962.

**AUSTRALIA: CONTRIBUTIONS TO COLOMBO PLAN COUNTRIES FOR  
ECONOMIC DEVELOPMENT, TO DECEMBER, 1962**  
(£)

Country							Capital aid
Burma	..	..	..	..	..	..	628,730
Cambodia	..	..	..	..	..	..	770,741
Ceylon	..	..	..	..	..	..	3,215,592
India	..	..	..	..	..	..	12,521,827
Indonesia	..	..	..	..	..	..	2,613,803
Laos	..	..	..	..	..	..	267,273
Malaya	..	..	..	..	..	..	492,770
Nepal	..	..	..	..	..	..	126,714
North Borneo	..	..	..	..	..	..	205,348
Pakistan	..	..	..	..	..	..	10,606,655
Philippines	..	..	..	..	..	..	35,180
Sarawak	..	..	..	..	..	..	81,933
Thailand	..	..	..	..	..	..	823,821
Viet Nam	..	..	..	..	..	..	1,290,825
Miscellaneous expenditure	..	..	..	..	..	..	241,572
<b>Total</b>	..	..	..	..	..	..	<b>(a) 33,922,784</b>

(a) The contributions up to June, 1963, amounted to £35,790,500.

Projects which have received Australian assistance include irrigation schemes in Pakistan, Ceylon and Indonesia; diesel locomotives and railway rolling stock for Pakistan, Malaya, India, Cambodia and Thailand; tractors, bulldozers, road rollers and earthmoving equipment for the Tungabhadra project in India as well as electrical gear for India's Ramagundam project; irrigation pumps for Burma; buses, tractors and telecommunications equipment for Indonesia; lignite preparation plant for Thailand, communications and agricultural equipment for Pakistan, Vietnam, Cambodia, Laos and Nepal; equipment for essential municipal services in Cambodia, Malaya, Pakistan and Vietnam.

Australia continues to believe that its facilities and experience can be of most value in the fields of technical assistance to help raise the level of skills in Asian member countries.

This involves the training not only of technicians, but also of professional and administrative staff to provide a sound administrative framework in which economic development can be planned and implemented.

## § 5. ANZUS and SEATO

1. **ANZUS Council.**—On 1st September, 1951, in connexion with the re-establishment of peace with Japan, Australia, New Zealand and the United States of America signed a Security Treaty, pursuant to Articles 51 and 52 of the United Nations, which provided that in the event of an armed attack on any one of them in the Pacific, each of the three would act to meet the common danger in accordance with its constitutional processes. The instruments of ratification were deposited in Canberra on 29th April, 1952, on which date the Treaty came into force.

The machinery of the ANZUS Treaty comprises a Council, composed of the three Foreign Ministers or their Deputies. The Council meets periodically for consultation on matters of mutual concern to the parties to the Treaty.

The Council has met twelve times since the Treaty entered into force. The Twelfth Council Meeting was held in Wellington on 5th-6th June, 1963. It was attended by the New Zealand Prime Minister, Mr. Holyoake, the United States Under-Secretary of State for Political Affairs, Mr. Harriman, and the Australian Minister for External Affairs, Sir Garfield Barwick.

2. **SEATO.**—Following the cessation of fighting in Indo-China, under the terms of the armistice that led to the Geneva Agreements, the Australian Prime Minister announced on 5th August, 1954, that plans were in hand to establish a South-East Asia Defence Organization. He said it was hoped that the countries of Asia would participate when it was seen that such an organization was designed to help preserve the national integrity of Asian as well as non-Asian countries. Australia would become a contributory party and would, in association with other nations acting similarly, accept military obligations in support of its membership. He said that it has been a tradition of Australian Governments that commitments were not accepted in advance and that such matters were for the determination of the Government and Parliament if and when war occurred.

In September, 1954, Australia, France, New Zealand, Pakistan, the Philippines, Thailand, the United Kingdom and the United States of America signed a collective defence treaty at Manila after a three-day conference. They also signed a Pacific Charter stating the principles on which they had acted. A protocol to the Treaty extended its operation to Cambodia, Laos and South Vietnam. The security provisions of the Treaty are as follows:— Each Party recognizes that aggression by means of armed attack in the Treaty Area against any of the Parties or against any State or territory which the Parties by unanimous agreement may hereafter designate, would endanger its own peace and safety, and agrees that it will in that event act to meet the common danger in accordance with its constitutional processes. Measures taken under this paragraph shall be immediately reported to the United Nations (Article IV. (1)).

If, in the opinion of any of the Parties, the inviolability or the integrity of the territory or the sovereignty of political independence of any Party in the Treaty Area or of any other State or territory to which the provisions of paragraph 1 of this Article from time to time apply is threatened in any way other than by armed attack or is affected or threatened by any pact or situation which might endanger the peace of the area, the Parties shall consult immediately in order to agree on the measures which should be taken for the common defence (Article IV. (2)).

In 1956, the Australian Government instituted a SEATO Aid Programme under which, by 1962, a total of £3,000,000 worth of aid had been given to member countries in Asia to help them to discharge their defence responsibilities. In May, 1962, the expenditure of a further £3,000,000 was authorized under the programme during the three years to 1965. Under the scheme, Australia has provided a survey vessel for the Philippines Bureau of Coast and Geodetic Survey and is currently undertaking the construction of a second survey vessel; Thailand and the Philippines have received a wide range of useful equipment for the fighting services—ambulances, staff cars, uniform cloth, tents, tarpaulins, medical and dental supplies—and the establishment near Bangkok of a Military Vehicle Base Workshop under joint Thai/Australian auspices has commenced; telecommunications equipment and tractors have gone to Pakistan which has also received electronic welding and refrigeration training equipment for its military training institutions; a Military Technical Training School, established in Bangkok, has been completely equipped by Australia, and Australian instructors have been provided for it; Vietnam has received quantities of barbed wire and corrugated iron for use in housing and protecting villagers. Australia has also provided training for many servicemen from SEATO countries in Asia.

## CHAPTER XXIX

### MISCELLANEOUS

NOTE.—This chapter comprises miscellaneous statistics and other descriptive information not directly related to the subjects of the preceding chapters, arranged in sections as follows:—

1. Valuation of Australian Production; 2. Indexes of Production; 3. Consumption of Foodstuffs and Beverages; 4. Retail Trade; 5. Statistical Organization in Australia; 6. Statistical Publications of Australia.

Matter included in this chapter in the previous issue referring to Patents, Trade Marks and Designs, Copyright, The United Nations, and Australian Representation Abroad and Oversea Representation in Australia has been transferred to Chapter XVI. Public Justice and Chapter XXVIII. International Relations.

In previous issues of the Year Book (*see* No. 48, p. 1166), a list of *Australian Books* has been included. This list, compiled by the Librarian of the Commonwealth National Library is available from the Library, but considerations of space preclude its publication in this issue.

#### § 1. Valuation of Australian Production

1. *General*.—The value of production for Australia is computed in accordance with the decisions reached at the Conferences of Australian Statisticians and principally at the Conference held in 1935. The figures published on pp. 1236–7 have been compiled by the Statisticians in the various States from the latest data available, and relate to 1961–62. The adoption of substantially uniform methods of valuing production and of estimating elements of costs of production and marketing renders the results comparable as between States.

Attention is directed to the fact that the values shown in the tables herein refer only to the production of primary industries and factories, and exclude the building and construction industry, those industrial establishments not classified as factories, and certain agricultural and farmyard produce obtained from areas of less than one acre.

The following is a brief explanation of the terms used.

- (a) *Gross Value of Production* is the value placed on recorded production at the wholesale price realized at the principal markets. In cases where primary products are consumed at the place of production or where they become raw material for a secondary industry, these points of consumption are presumed to be the principal markets.
- (b) *Local Value* (i.e., gross production valued at the place of production) is ascertained by deducting marketing costs from the gross value. Marketing costs include freight, cost of containers, commission, and other charges incidental thereto.
- (c) *Net Value of Production* represents local value less value of materials used in the process of production. Materials used in the process of production include seed, power, power kerosene, petrol and other oils, fodder consumed by farm stock, manures, dips, sprays and other costs. No deductions have been made for depreciation or certain maintenance costs as particulars are not available for all States. The net value of production is the only satisfactory measure to use when comparing or combining the value of primary industries with those of other industries.

For the years shown in the following tables, no allowance for power, power kerosene, petrol and other oils has been made in New South Wales; and in the case of Tasmania, allowance for these items has been made since 1958–59 only. In the case of the mining and quarrying industry, however, this allowance has been made throughout. Costs of materials used in the process of production are not available for all States in respect of Trapping, Forestry and Fisheries, and local values have been used for these industries with consequent overstatement in net values.

2. Value of Production, Australia, 1961-62.—The following table shows particulars of the gross, local and net values of production in Australia by industries.

**GROSS, LOCAL AND NET VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES: AUSTRALIA, 1961-62**

(£'000)

Industry	Gross production valued at principal markets	Local value—Gross production valued at place of production	Net value of production (without deduction of depreciation or maintenance)
Agriculture .. .. .	504,172	428,963	366,503
Pastoral .. .. .	593,659	538,749	481,338
Dairying .. .. .	206,236	188,976	136,497
Poultry .. .. .	61,726	53,460	26,719
Bee-farming .. .. .	2,007	1,613	(a) 1,613
<b>Total, Rural</b> .. .. .	<b>1,367,800</b>	<b>1,211,761</b>	<b>1,012,670</b>
Trapping .. .. .	6,626	5,888	(a) 5,888
Forestry .. .. .	56,052	50,997	(a) 50,997
Fishing and whaling .. .. .	15,856	14,294	(a) 14,294
Mining and quarrying .. .. .	(a) 181,378	181,378	138,052
<b>Total, Non-rural</b> .. .. .	<b>259,912</b>	<b>252,557</b>	<b>209,231</b>
<b>Total, All Primary</b> .. .. .	<b>1,627,712</b>	<b>1,464,318</b>	<b>1,221,901</b>
Factories .. .. .	(b) 2,197,211	(b) 2,197,211	2,197,211
<b>Total, All Industries</b> .. .. .	<b>3,824,923</b>	<b>3,661,529</b>	<b>3,419,112</b>

(a) Local value.

(b) Net value; excludes Northern Territory and Australian Capital Territory.

3. Net Value of Production, States, 1961-62.—The following tables show the total net value of production, and the net value per head of population, for each industry and State.

**NET(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES, 1961-62**

(£'000)

Industry	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Agriculture ..	93,858	88,245	75,076	45,467	51,325	12,345	75	112	366,503
Pastoral ..	183,002	115,528	86,449	45,628	41,328	5,854	2,605	944	481,338
Dairying ..	49,667	43,522	22,051	9,926	4,370	6,782	19	160	136,497
Poultry ..	8,645	14,286	1,463	948	604	549	97	127	26,719
Bee-farming(b) ..	590	415	49	286	248	23	..	2	1,613
<b>Total, Rural</b> ..	<b>335,762</b>	<b>261,996</b>	<b>185,088</b>	<b>102,255</b>	<b>97,875</b>	<b>25,553</b>	<b>2,796</b>	<b>1,345</b>	<b>1,012,670</b>
Trapping(b) ..	2,065	2,810	255	343	186	165	64	..	5,888
Forestry(b) ..	14,431	16,449	5,895	3,793	5,191	5,090	24	124	50,997
Fishing and whaling(b) ..	3,288	1,741	1,633	1,379	5,291	909	53	..	14,294
Mining and quarrying ..	60,684	17,286	23,434	13,103	15,553	5,203	2,789	..	138,052
<b>Total, Non-rural</b> ..	<b>80,468</b>	<b>38,286</b>	<b>31,217</b>	<b>18,618</b>	<b>26,221</b>	<b>11,367</b>	<b>3,054</b>	<b>..</b>	<b>209,231</b>
<b>Total, All Primary</b> ..	<b>416,230</b>	<b>300,282</b>	<b>216,305</b>	<b>120,873</b>	<b>124,096</b>	<b>36,920</b>	<b>7,195</b>	<b>..</b>	<b>1,221,901</b>
Factories ..	968,694	717,327	175,298	173,914	98,041	63,937	(c)	..	2,197,211
<b>Total, All Industries</b> ..	<b>1,384,924</b>	<b>1,017,609</b>	<b>391,603</b>	<b>294,787</b>	<b>222,137</b>	<b>100,857</b>	<b>7,195</b>	<b>..</b>	<b>3,419,112</b>

(a) See letterpress on p. 1235.

(b) Local value.

(c) Not available for publication.

NET(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES  
PER HEAD OF POPULATION, 1961-62

(£ s.)

Industry	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Australia (b)
Agriculture ..	23 15	29 16	49 3	46 8	68 16	34 12	34 11
Pastoral ..	46 7	39 1	56 12	46 11	55 8	16 8	45 8
Dairying ..	12 12	14 15	14 9	10 3	5 18	19 0	12 18
Poultry ..	2 4	4 16	0 19	0 19	0 16	1 11	2 10
Bee-farming(c) ..	0 3	0 3	0 1	0 6	0 7	0 2	0 3
<i>Total, Rural</i> ..	<i>85 1</i>	<i>88 11</i>	<i>121 4</i>	<i>104 7</i>	<i>131 5</i>	<i>71 13</i>	<i>95 10</i>
Trapping(c) ..	0 11	0 19	0 3	0 7	0 5	0 9	0 11
Forestry(c) ..	3 13	5 11	3 17	3 18	6 19	14 5	4 16
Fishing and whaling(c) ..	0 17	0 12	1 2	1 8	7 2	2 11	1 7
Mining and quarrying ..	15 7	5 17	15 7	13 7	20 17	14 12	13 0
<i>Total, Non-rural..</i>	<i>20 8</i>	<i>12 19</i>	<i>20 9</i>	<i>19 0</i>	<i>35 3</i>	<i>31 17</i>	<i>19 14</i>
<i>Total, All Primary Factories..</i> ..	<i>105 9 245 7</i>	<i>101 10 242 8</i>	<i>141 13 114 16</i>	<i>123 7 177 9</i>	<i>166 8 131 9</i>	<i>103 10 179 5</i>	<i>115 4 207 3</i>
<b>Total, All Industries</b>	<b>350 16</b>	<b>343 18</b>	<b>256 9</b>	<b>300 16</b>	<b>297 17</b>	<b>282 15</b>	<b>322 7</b>

(a) See letterpress on p. 1235.

(b) Includes N.T. and A.C.T.

(c) Local value.

4. Net Value of Production, Australia, 1957-58 to 1961-62.—The following table shows the net value of production for Australia.

NET(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND  
FACTORIES: AUSTRALIA

(£'000)

Industry	1957-58	1958-59	1959-60	1960-61	1961-62
Agriculture ..	244,530	328,943	291,951	391,861	366,503
Pastoral ..	447,247	443,622	536,215	458,169	481,338
Dairying ..	127,624	141,944	152,193	142,131	136,497
Poultry ..	27,326	27,360	30,424	33,663	26,719
Bee-farming(b) ..	1,566	1,605	2,060	1,458	1,613
<i>Total, Rural</i> ..	<i>848,293</i>	<i>943,474</i>	<i>1,012,843</i>	<i>1,027,282</i>	<i>1,012,670</i>
Trapping(b) ..	6,027	6,362	6,881	6,601	5,888
Forestry(b) ..	51,306	52,273	53,859	52,057	50,997
Fishing and whaling(b) ..	10,402	11,243	12,325	12,813	14,294
Mining and quarrying ..	126,802	118,336	126,155	139,027	138,052
<i>Total, Non-rural</i> ..	<i>194,537</i>	<i>188,214</i>	<i>199,220</i>	<i>210,498</i>	<i>209,231</i>
<i>Total, All Primary Factories</i> ..	<i>1,042,830 1,728,723</i>	<i>1,131,688 1,842,601</i>	<i>1,212,063 2,074,882</i>	<i>1,237,780 2,169,804</i>	<i>1,221,901 2,197,211</i>
<b>Total, All Industries</b>	<b>2,771,553</b>	<b>2,974,289</b>	<b>3,286,945</b>	<b>3,407,584</b>	<b>3,419,112</b>

(a) See letterpress on p. 1235.

(b) Local value.



In the chapters dealing with the respective industries, tables will be found showing the value of production and the value per head of population for the industry, by States. In some instances, figures shown therein have been revised, and therefore do not agree with corresponding figures in the preceding tables.

## § 2. Indexes of Production

In the first two tables in this section, indexes of price and quantum (i.e., value at constant prices) of production are given for the following industrial groups:—Agriculture, Pastoral, Farmyard and Dairying, and All Farming combined (including separate indexes for Wool and Products other than wool). In the third table, indexes of quantum (i.e., value at constant prices) of production, exports and consumption of farm products for food use are shown.

1. **Farm Production Price Indexes.**—The Farm Production Price Indexes shown in the following table relate to average “prices” of agricultural, pastoral, farmyard and dairying products realized at the principal markets of Australia. The “price” data used are average unit values for the total quantities of the relevant commodities produced or marketed in each year, and the index numbers therefore measure both the effects of changes in prices (as such) and of variations in the quality, type, usage, etc., of products marketed. The index numbers for any year relate to the average values of products produced or marketed in that year, irrespective of the periods in which payment is received by producers.

The indexes have been calculated by the fixed-base weighted aggregative method. “Prices” for each commodity in any year are obtained by dividing gross value of production by the quantity produced in that year. In the original published series of Production Price Index Numbers, the average quantities of the relevant commodities *produced* in the period 1923–24 to 1927–28 were used as fixed weights. This series, re-computed to the base, average 1936–37 to 1938–39 = 100, was published in earlier issues of the Official Year Book (see No. 43, p. 1050). For 1936–37 and later years, the original series was replaced in December, 1952, by a revised series in which average quantities of each product *marketed* during the period 1946–47 to 1950–51 were used as fixed weights. In the revised series, the regimen was extended and modified to include farm products (as defined by Australian Statisticians) in all cases. Certain other refinements were also incorporated in the revised indexes, the principal of which was the omission from the weights used for the All Farming Index of quantities of crops marketed for livestock feeding in Australia.

### FARM PRODUCTION: INDEXES OF PRICES AT PRINCIPAL MARKETS, AUSTRALIA

(Base: Average 1936–37 to 1938–39 = 100)

Year	Agri- culture	Pastoral	Farmyard and dairying	All farming	Wool (shorn and dead)	Products other than wool
1947–48 .. .. .	267	263	183	247	301	230
1948–49 .. .. .	234	313	197	260	366	225
1949–50 .. .. .	272	396	228	316	483	261
1950–51 .. .. .	291	818	258	505	1,098	308
1951–52 .. .. .	355	501	332	410	552	363
1952–53 .. .. .	364	531	387	440	623	379
1953–54 .. .. .	324	534	395	429	621	365
1954–55 .. .. .	316	489	371	401	540	355
1955–56 .. .. .	330	451	392	397	468	373
1956–57 .. .. .	336	536	386	432	607	374
1957–58 .. .. .	336	435	382	388	473	359
1958–59 .. .. .	322	396	386	369	370	369
1959–60 .. .. .	329	464	402	403	440	391
1960–61 .. .. .	349	443	404	402	397	404
1961–62 .. .. .	348	421	374	385	412	376

2. **Indexes of Quantum (i.e. Value at Constant Prices) of Farm Production.**—The indexes shown in the following table relate to gross output of farm products valued at constant prices. They have been calculated by revaluing quantities of each farm product included in the indexes at the average unit gross value of each product for the base years.

In the original published series, the period 1923–24 to 1927–28 was adopted as the base for revaluing each farm product. This series, re-computed to the base, average 1936–37 to 1938–39 = 100, was published in earlier issues of the Official Year Book (*see* No. 43, p. 1051). For 1936–37 and later years, the original series was replaced in December, 1952, by a revised series in which average unit values for the period 1936–37 to 1938–39 were used. The regimen used for the revised series was extended and modified to include farm products (as defined by Australian Statisticians) in all cases. Certain other refinements were incorporated in the revised indexes, the principal of which was the omission, in calculating the All Farming Index, of quantities of crops fed to livestock in Australia.

### INDEXES OF QUANTUM(a) OF FARM PRODUCTION, AUSTRALIA

(Base: Average 1936–37 to 1938–39 = 100)

Year	Agri- culture	Pastoral	Farmyard and dairying	All farming	Wool (shorn and dead)	Products other than wool
1947–48 .. .. .	122	98	107	109	101	111
1948–49 .. .. .	108	105	111	109	108	109
1949–50 .. .. .	117	112	111	115	115	115
1950–51 .. .. .	108	109	106	109	116	107
1951–52 .. .. .	103	105	97	103	112	100
1952–53 .. .. .	121	126	108	121	131	118
1953–54 .. .. .	129	123	107	122	128	120
1954–55 .. .. .	120	127	117	123	132	120
1955–56 .. .. .	134	136	120	131	146	127
1956–57 .. .. .	120	148	117	131	164	121
1957–58 .. .. .	109	142	114	124	148	116
1958–59 .. .. .	165	159	119	149	164	145
1959–60 .. .. .	140	163	123	144	172	136
1960–61 .. .. .	177	152	120	152	165	148
1961–62 .. .. .	163	167	128	158	174	153

(a) Indexes of value at constant prices, i.e., quantities revalued at average unit values for the base years (*see* text preceding table).

3. **Farm Products for Food Use: Indexes of Quantum (i.e. Value at Constant Prices) of Production, Exports and Consumption.**—The indexes shown in the following table have been calculated by revaluing quantities of each farm product included in the indexes at the average unit gross value of each product for the years 1936–37 to 1938–39. The items included comprise products in the form in which they are sold from farms in all cases except live-stock sold for slaughter for meat, which are included in terms of dressed carcass weight of meat. Quantity data relating to exports include exports of processed food in terms of farm product equivalent. The indexes of production relate basically to gross output of farm products for food use, including crops exported for stock-feeding overseas.

# FARM PRODUCTS FOR FOOD USE: INDEXES OF QUANTUM<sup>(a)</sup> OF PRODUCTION, EXPORTS AND CONSUMPTION

(Base: Average 1936-37 to 1938-39 = 100)

Year	Production		Exports		Consumption in Australia	
	Total	Per head of total population	Total	Per head of total population	Total	Per head of total population
1947-48.. ..	113	102	113	102	110	99
1948-49.. ..	110	97	112	99	111	98
1949-50.. ..	116	99	116	99	114	98
1950-51.. ..	109	90	104	86	120	99
1951-52.. ..	100	81	70	57	119	96
1952-53.. ..	118	93	113	89	119	94
1953-54.. ..	122	94	102	79	124	96
1954-55.. ..	121	91	117	89	127	96
1955-56.. ..	129	95	131	97	131	97
1956-57.. ..	123	88	118	85	136	98
1957-58.. ..	115	81	90	64	139	98
1958-59.. ..	146	101	137	94	142	98
1959-60.. ..	138	93	132	89	145	98
1960-61.. ..	148	98	170	112	143	95
1961-62p ..	153	99	160	104	151	98

(a) Indexes of value at constant prices, i.e., quantities revalued at average unit values for the base years, 1936-37 to 1938-39.

## § 3. Consumption of Foodstuffs and Beverages

1. **Quantities Consumed.**—The estimates of total consumption and consumption per head of population in Australia in the two tables which follow have been compiled by deducting net exports from the sum of production and imports and allowing for recorded movements in stocks of the respective commodities. While the estimates may be generally accepted as being reasonably accurate, there are some deficiencies to which attention should be directed. These relate chiefly to the quantities of poultry, game and fish (fresh and shell) and the quantities of visible oils and other fats entering consumption. In addition, little information is available on the quantities of vegetables, fruit, eggs, etc., which householders produce for their own requirements and the extent of wastage occurring in the marketing of foodstuffs. In all these cases, careful estimates have been compiled from the best available data, and the quantities shown as entering consumption in Australia have been adjusted to allow for these circumstances. The absence of particulars for stocks of certain commodities has resulted in some inaccuracies in the estimates of annual consumption. Consumption of foodstuffs is measured in general at "producer" level. As a result, no allowance is made for wastage before the foodstuffs are consumed. In recent years, wastage of foodstuffs has possibly been less than previously because of more efficient distribution and storage methods. Furthermore, it is likely that the quantities of foodstuffs shown in the following pages as available for consumption have been supplemented by production by householders for their own requirements. In most cases, broad estimates of non-commercial (householders') production have been made. Except in a few special cases, no adjustment has been made for changes in stocks held by wholesalers and retailers. Where no allowance is made, it is considered unlikely that these stocks would make any appreciable difference to consumption estimates. Allowance has not been made for the purchase of foodstuffs for dispatch overseas as gifts in bulk and by parcel post. These deficiencies, however, do not seriously impair the accuracy of the estimates compiled.

The estimates of consumption per head of population shown in the second of the following tables have been derived by dividing the total apparent consumption of each commodity or commodity group in a given year by the mean population of Australia in the same period.

More detailed information on the consumption of foodstuffs and beverages is contained in the statistical bulletin: *Report on Food Production and the Apparent Consumption of Foodstuffs and Nutrients in Australia*, issued by this Bureau.

The following tables show the average annual consumption during the three-year periods ended 1938-39, 1948-49, and 1958-59, together with the data for each of the years 1959-60, 1960-61 and 1961-62.

### ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY: AUSTRALIA

Commodity	Unit of quantity	Average three years ended—			1959-60	1960-61	1961-62 (a)
		1938-39	1948-49	1958-59			
Milk and milk products—							
Fluid whole milk .. ..	Mill. gals.	161	233	276	290	298	304
Fresh cream .. ..	'000 tons	19.7	5.1	8.7	9.1	9.3	9.5
Full cream milk products—							
Condensed, concentrated and evaporated full cream milk—							
Sweetened .. ..	"	13.2	{ 11.9	11.3	12.1	11.3	11.3
Unsweetened .. ..	"						
Powdered full cream milk .. ..	"	8.1	11.0	11.0	12.2	11.7	12.0
Infants' and invalids' foods .. ..	"	3.0	4.3	9.4	13.0	11.8	11.5
Milk by-products—							
Condensed, concentrated and evaporated skim milk .. ..	"	(b)	(b)	5.6	4.7	4.7	5.2
Powdered skim milk .. ..	"	..	1.9	10.7	16.4	20.5	20.2
Cheese .. ..	"	13.4	18.8	25.0	28.8	29.8	30.7
Total (in terms of milk solids) .. ..	"	120.5	167.4	212.4	230.8	239.0	243.6
Meat—							
Beef and veal(c) .. ..	"	430.3	372.7	538.4	446.4	396.1	439.8
Mutton(c) .. ..	"	184.1	154.0	221.6	289.5	293.0	261.5
Lamb(c) .. ..	"	46.0	86.1	127.7	176.8	177.2	203.4
Pigmeat(c) .. ..	"	26.2	24.3	43.6	46.8	53.0	62.0
Offal .. ..	"	25.7	30.3	49.7	52.8	50.6	53.2
Canned meat (canned weight) .. ..	"	6.5	9.0	17.9	18.7	19.3	18.5
Bacon and ham (cured carcass weight) .. ..	"	31.5	39.9	30.5	32.1	31.7	32.9
Total (in terms of carcass equivalent weight) .. ..	"	769.9	736.9	1,054.1	1,083.0	1,040.2	1,096.2
Poultry, game and fish—							
Poultry and rabbits (dressed weight) .. ..	"	29.8	54.0	50.9	53.0	54.5	55.6
Fish(d)—							
Fresh—							
Australian origin .. ..	"	19.7	19.4	{ 13.8	14.7	14.3	15.2
Imported .. ..	"						
Cured (including smoked and salted) .. ..	"	(e)	(e)	3.8	5.0	5.1	4.8
Crustaceans and molluscs .. ..	"	2.1	2.1	3.8	4.6	5.3	4.7
Canned—Australian origin .. ..	"	12.4	10.5	{ 3.3	3.5	3.4	3.8
Imported .. ..	"						
Total (edible weight) .. ..	"	51.5	63.2	76.2	81.8	85.5	82.8
Eggs and egg products—							
Shell eggs .. ..	"	78.7	86.5	92.1	98.1	(f)113.3	(f)116.2
Liquid whole egg(g) .. ..	"	2.9	8.6	5.7	6.9	(f) 8.3	(f) 7.7
Egg powder(g) .. ..	"	..	..	0.2	0.3	(f) 0.3	(f) 0.3
Total (shell egg equivalent) .. ..	"	81.6	95.1	98.0	105.3	(f)121.9	(f)124.2
Fats and oils—							
Butter .. ..	'000 tons	100.8	84.7	118.4	118.7	116.3	113.8
Margarine—							
Table .. ..	"	2.8	3.0	15.5	16.0	16.2	15.5
Other .. ..	"	12.2	18.7	21.2	25.9	27.0	28.2
Vegetable oils and other fats .. ..	"	14.4	13.8	19.6	20.4	20.9	21.3
Total (fat content) .. ..	"	115.5	105.5	148.3	154.4	153.9	152.6

See next page for notes.

**ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY: AUSTRALIA—continued**

Commodity	Unit of quantity	Average three years ended—			1959-60	1960-61	1961-62 (a)
		1938-39	1948-49	1958-59			
<b>Sugar and syrups—</b>							
Refined sugar—							
As sugar .. .. .	'000 tons	216.5	234.6	259.0	248.3	249.6	253.0
In manufactured products ..	"	110.1	174.2	226.1	252.8	249.3	273.1
Honey, glucose and syrups (sugar content) .. ..	"	17.3	19.1	22.8	29.2	26.1	24.5
<i>Total (sugar content) ..</i>	"	<i>343.9</i>	<i>427.9</i>	<i>507.9</i>	<i>530.4</i>	<i>525.0</i>	<i>550.6</i>
<b>Pulse and nuts—</b>							
Dried pulse .. .. .	"	4.5	7.2	10.7	9.6	10.3	10.5
Peanuts (weight without shell)	"	2.8	8.7	7.2	10.7	9.7	13.4
Edible tree nuts (weight without shell)	"	2.6	4.4	6.7	7.0	8.2	9.1
Cocoa (raw beans) .. ..	"	6.3	11.6	12.1	13.9	14.8	15.1
<i>Total .. .. .</i>	"	<i>16.2</i>	<i>31.9</i>	<i>36.7</i>	<i>41.2</i>	<i>43.0</i>	<i>48.1</i>
<b>Fruit—</b>							
Citrus fruit(h) .. ..	"	97.8	127.2	153.8	186.4	164.8	203.1
Other fresh fruit .. ..	"	288.2	297.5	341.4	390.1	399.5	412.7
Jams .. .. .	"	35.1	42.5	37.5	39.1	39.0	38.5
Dried fruit .. .. .	"	24.8	30.4	26.4	30.4	29.9	28.1
Canned fruit .. .. .	"	31.9	37.3	59.4	69.6	81.3	77.4
<i>Total (fresh fruit equivalent)</i>	"	<i>532.3</i>	<i>607.9</i>	<i>691.4</i>	<i>801.4</i>	<i>804.1</i>	<i>840.3</i>
<b>Vegetables—</b>							
Leafy and green vegetables ..	"	(b)	154.0	172.1	174.3	177.8	195.0
Tomatoes(h) .. .. .	"	(i) 48.0	86.3	124.4	114.6	141.5	139.4
Root and bulb vegetables ..	"	(b)	143.7	152.8	147.4	141.1	156.0
Potatoes—							
White .. .. .	"	318.5	424.3	495.4	523.7	400.6	453.5
Sweet .. .. .	"	7.4	5.3	6.1	6.4	6.5	6.6
Other vegetables .. .. .	"	(b)	162.8	178.4	162.7	172.1	170.2
<i>Total .. .. .</i>	"	<i>(b)</i>	<i>976.4</i>	<i>1,129.2</i>	<i>1,129.1</i>	<i>1,039.6</i>	<i>1,120.7</i>
<b>Grain products—</b>							
Flour (including wheat, ryeal for baking and sharps) ..	"	574.0	689.7	789.1	804.6	782.0	809.9
Breakfast foods .. .. .	"	32.5	45.8	58.8	60.4	65.7	67.5
Rice (milled) .. .. .	"	12.2	3.0	16.1	16.8	17.2	17.5
Tapioca, sago, etc. .. ..	"	3.7	2.3	1.4	1.3	1.1	0.8
Pearl barley .. .. .	"	3.0	1.7	2.0	2.0	1.8	1.3
Barley meal and polished wheat (rice substitute) .. ..	"	..	1.6	0.5	0.1	0.1	0.1
Edible starch (cornflour) ..	"	4.3	4.9	2.7	2.4	3.0	(b)
<i>Total .. .. .</i>	"	<i>629.7</i>	<i>749.0</i>	<i>870.6</i>	<i>887.6</i>	<i>870.9</i>	<i>897.1</i>
<b>Beverages—</b>							
Tea .. .. .	"	21.1	22.1	26.1	27.0	27.3	27.3
Coffee .. .. .	"	2.0	3.4	5.9	8.0	8.0	9.5
Beer .. .. .	Mil. gals.	80.1	129.5	221.0	230.1	234.6	238.4
Wine .. .. .	"	4.2	9.8	11.1	11.7	11.7	12.0
Spirits .. .. .	Mil. pf. gals.	1.5	2.4	2.8	3.3	3.1	3.4

(a) Subject to revision. (b) Not available. (c) Carcase weight. (d) Edible weight.  
 (e) Included with fresh. (f) Not comparable with data prior to 1960-61, in which year the average weight of an egg was altered in calculations from 1.75 oz. to 2 oz.  
 (g) In terms of weight of shell eggs. (h) Includes fresh equivalent of manufactured products. (i) Probably understated owing to lack of complete data.

## ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY PER HEAD OF POPULATION: AUSTRALIA

Commodity	Unit of quantity	Average three years ended—			1959-60	1960-61	1961-62 (a)
		1938-39	1948-49	1958-59			
Milk and milk products—							
Fluid whole milk .. ..	Gallon	23.4	30.5	28.3	28.6	28.7	28.5
Fresh cream .. ..	lb.	6.1	1.5	2.0	2.0	2.0	2.0
Full cream milk products—							
Condensed, concentrated and evaporated full cream milk—							
Sweetened .. ..	"	4.2	3.5	2.6	2.7	2.4	2.4
Unsweetened .. ..	"		4.0	6.4	6.6	6.4	6.7
Powdered full cream milk ..	"	2.6	3.2	2.5	2.7	2.5	2.5
Infants' and invalids' foods ..	"	1.0	1.3	2.2	2.9	2.5	2.4
Milk by-products—							
Condensed, concentrated and evaporated skim milk ..	"	(b)	(b)	1.3	1.0	1.0	1.1
Powdered skim milk .. ..	"	..	0.6	2.5	3.6	4.4	4.3
Cheese .. ..	"	4.4	5.5	5.7	6.4	6.4	6.5
Total (in terms of milk solids) .. ..	"	39.3	49.1	48.7	51.0	51.4	50.9
Meat—							
Beef and veal(c) .. ..	"	140.3	109.1	123.8	98.4	85.4	92.9
Mutton(c) .. ..	"	60.0	45.1	51.0	63.8	63.2	55.2
Lamb(c) .. ..	"	15.0	25.2	29.3	39.0	38.2	43.0
Pigmeat(c) .. ..	"	8.5	7.1	10.1	10.3	11.4	13.1
Offal .. ..	"	8.4	8.9	11.4	11.6	10.9	11.2
Canned meat (canned weight) ..	"	2.1	2.6	4.1	4.1	4.2	3.9
Bacon and ham (cured carcass weight) .. ..	"	10.2	11.7	7.1	7.1	6.8	7.0
Total (in terms of carcass equivalent weight) .. ..	"	250.9	215.7	242.4	238.6	224.2	231.5
Poultry, game and fish—							
Poultry and rabbits (dressed weight) .. ..	"	9.7	15.8	11.7	11.7	11.7	11.7
Fish(d)—							
Fresh—							
Australian origin .. ..	"	6.4	5.7	3.2	3.2	3.1	3.2
Imported .. ..	"			2.1	3.2	3.0	2.7
Cured (including smoked and salted) .. ..	"	(e)	(e)	0.9	1.1	1.1	1.0
Crustaceans and molluscs ..	"	0.7	0.6	0.9	1.0	1.2	1.0
Canned—							
Australian origin .. ..	"	4.1	3.0	0.8	0.8	0.7	0.8
Imported .. ..	"			1.7	2.0	2.6	2.0
Total (edible weight) .. ..	"	16.8	18.5	17.7	18.1	18.5	17.5
Eggs and egg products—							
Shell eggs .. ..	"	25.7	25.4	21.2	21.6	(f) 24.4	(f) 24.6
Liquid whole egg(g) .. ..	"	0.9	2.5	1.3	1.5	(f) 1.8	(f) 1.6
Egg powder(g) .. ..	"	..	..	..	0.1	(f) 0.1	(f) 0.1
Total (shell egg equivalent) .. ..	No.	26.6 243	27.9 255	22.5 206	23.2 212	(f) 26.3 210	(f) 26.3 210
Fats and oils—							
Butter .. ..	lb.	32.9	24.8	27.2	26.2	25.1	24.0
Margarine—							
Table .. ..	"	0.9	0.9	3.6	3.5	3.5	3.3
Other .. ..	"	4.0	5.2	4.9	5.7	5.8	6.0
Vegetable oils and other fats ..	"	6.4	5.3	4.5	4.5	4.5	4.5
Total (fat content) .. ..	"	37.6	30.9	34.1	34.0	33.1	32.3
Sugar and syrups—							
Refined sugar—							
As sugar .. ..	"	70.6	68.7	59.5	54.7	53.8	53.4
In manufactured products ..	"	35.9	51.0	52.0	55.7	53.7	57.7
Honey, glucose and syrups (sugar content) .. ..	"	5.5	5.6	5.2	6.4	5.6	5.2
Total (sugar content) .. ..	"	112.0	125.3	116.7	116.8	113.1	116.3

See next page for notes.

**ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE  
FOR CONSUMPTION ANNUALLY PER HEAD OF POPULATION:  
AUSTRALIA—continued**

Commodity	Unit of quantity	Average three years ended—			1959-60	1960-61	1961-62 (a)
		1938-39	1948-49	1958-59			
<b>Pulse and nuts—</b>							
Dried pulse .. ..	lb.	1.5	2.0	2.5	2.1	2.3	2.2
Peanuts (weight without shell) .. ..	"	0.9	2.5	1.7	2.4	2.1	2.8
Edible tree nuts (weight without shell) .. ..	"	0.8	1.3	1.5	1.5	1.8	1.9
Cocoa (raw beans) .. ..	"	2.1	3.4	2.7	3.1	3.2	3.2
<b>Total .. ..</b>	<b>"</b>	<b>5.3</b>	<b>9.2</b>	<b>8.4</b>	<b>9.1</b>	<b>9.4</b>	<b>10.1</b>
<b>Fruit—</b>							
Citrus fruit(h) .. ..	"	31.9	37.2	35.4	41.1	35.5	42.9
Other fresh fruit .. ..	"	94.0	87.1	78.4	86.0	86.1	87.2
Jams .. ..	"	11.4	12.4	8.6	8.6	8.4	8.1
Dried fruit .. ..	"	8.1	8.7	6.0	6.8	6.4	6.0
Canned fruit .. ..	"	10.4	11.0	13.6	15.3	17.5	16.4
<b>Total (fresh fruit equivalent)</b> .. ..	<b>"</b>	<b>173.6</b>	<b>178.0</b>	<b>157.6</b>	<b>176.5</b>	<b>173.3</b>	<b>177.5</b>
<b>Vegetables—</b>							
Leafy and green vegetables .. ..	"	(b)	45.1	39.5	38.4	38.3	41.2
Tomatoes(h) .. ..	"	(i) 15.7	25.3	28.6	25.3	30.5	29.4
Root and bulb vegetables .. ..	"	(b)	42.1	35.1	32.5	30.4	33.0
<b>Potatoes—</b>							
White .. ..	"	103.8	124.2	113.8	115.4	86.4	95.8
Sweet .. ..	"	2.4	1.5	1.4	1.4	1.4	1.4
Other vegetables .. ..	"	(b)	47.7	41.0	35.8	37.1	35.9
<b>Total .. ..</b>	<b>"</b>	<b>(b)</b>	<b>285.9</b>	<b>259.4</b>	<b>248.8</b>	<b>224.1</b>	<b>236.7</b>
<b>Grain products—</b>							
Flour (including wheatmeal for baking and sharps) .. ..	"	187.1	201.9	181.4	177.3	168.6	171.1
Breakfast foods .. ..	"	10.6	13.4	13.5	13.3	14.2	14.2
Rice (milled) .. ..	"	4.0	0.9	3.7	3.7	3.7	3.7
Tapioca, sago, etc. .. ..	"	1.2	0.7	0.3	0.3	0.2	0.2
Pearl barley .. ..	"	1.0	0.5	0.4	0.4	0.4	0.3
Barley meal and polished wheat (rice substitute) .. ..	"	..	0.5	0.1	(j)	(j)	(j)
Edible starch (cornflour) .. ..	"	1.4	1.4	0.6	0.5	0.7	(b)
<b>Total .. ..</b>	<b>"</b>	<b>205.3</b>	<b>219.3</b>	<b>200.0</b>	<b>195.5</b>	<b>187.8</b>	<b>189.5</b>
<b>Beverages—</b>							
Tea .. ..	"	6.9	6.5	6.0	6.0	5.9	5.8
Coffee .. ..	"	0.6	1.0	1.3	1.7	1.7	2.0
Beer .. ..	Gallon	11.7	16.9	22.7	22.6	22.6	22.5
Wine .. ..	"	0.6	1.3	1.1	1.2	1.1	1.1
Spirits .. ..	Pf. gal.	0.2	0.3	0.3	0.3	0.3	0.3

(a) Subject to revision. (b) Not available. (c) Carcass weight. (d) Edible weight. (e) Included with fresh. (f) Not comparable with data prior to 1960-61, in which year the average weight of an egg was altered in calculations from 1.75 oz. to 2 oz. (g) In terms of weight of shell eggs. (h) Includes fresh equivalent of manufactured products. (i) Probably understated owing to lack of complete data. (j) Less than 0.05 lb.

**2. Level of Nutrient Intake.**—The table below shows details of the estimated supplies of nutrients available for consumption in Australia during annual periods since 1959-60 in comparison with the annual average for the three-year periods ended 1938-39, 1948-49 and 1958-59. The table has been compiled by the Nutrition Section of the Commonwealth Department of Health and is based on the estimates of the quantity of foodstuffs available for consumption per head of population shown in the preceding table.

ESTIMATED SUPPLIES OF NUTRIENTS AVAILABLE FOR CONSUMPTION:  
AUSTRALIA

(Per Head per Day)

Nutrient	Unit	Average three years ended—			1959-60	1960-61	1961-62 (a)
		1938-39	1948-49	1958-59			
Calories .. ..	No.	3,117	3,245	3,297	3,325	3,226	3,287
Protein—							
Animal .. ..	gm.	58.7	57.4	59.6	60.5	58.8	59.8
Vegetable ..	..	30.9	35.3	32.3	32.2	31.4	31.6
Total .. ..	..	89.6	92.7	91.9	92.7	90.2	91.4
Fat .. ..	..	133.5	121.7	131.7	135.3	132.0	133.2
Carbohydrate ..	..	377.4	424.8	416.7	415.3	398.0	409.9
Calcium .. ..	mgm.	642	785	817	854	900	898
Iron .. ..	..	15.4	15.1	14.0	14.0	13.5	13.9
Vitamin A(b) ..	I.U.	4,905	4,630	4,568	4,277	4,165	4,166
Ascorbic acid ..	mgm.	86	96	89	90	85	93
Thiamine .. ..	..	1.4	1.5	1.3	1.3	1.3	1.3
Riboflavin .. ..	..	1.7	1.9	1.8	1.9	1.9	1.9
Niacin .. ..	..	18.7	17.6	18.6	18.9	18.0	18.3

(a) Subject to revision. (b) The Vitamin A figures for all periods prior to 1960-61 have been revised on the new basis introduced in 1960-61 of estimating total Vitamin A activity, by summing the Vitamin A content and one-third of the carotene value.

## § 4. Retail Trade

1. **General.**—The statistics in this section relate to the number of retail establishments throughout Australia and the value of retail sales of goods by these establishments.

Information of this nature was first collected in respect of the year ended 30th June, 1948, by a full census of all retail establishments. As this was the first census of its type in Australia, its scope and the data sought were the minima consistent with the objective of securing a record of the number of such establishments, their type, their geographical distribution, their aggregate sales of goods, and a simple commodity dissection, together with a record of the value of certain services provided. This census was followed by a second census of all retail establishments trading during the year ended 30th June, 1949.

Further censuses were taken in respect of the years ended 30th June, 1953 and 1957. In these censuses, retailers were asked to furnish more detailed information concerning the dissection of their turnover into commodity groups, and questions were asked about stocks of goods on hand, the number of persons engaged in retail activities, and credit sales. In addition, the 1956-57 census included questions relating to purchases, customers' indebtedness, and type of organization.

The most recent census was taken in respect of the year ended 30th June, 1962, and preliminary results have been published for all States and Australia in a series of mimeographed statements, copies of which are available from this Bureau. With the exception of some modifications to the scope of the collection (see p. 1246), the 1961-62 census followed the same general principles adopted for the previous census.

In general terms, the censuses covered the retail trading activities of establishments which normally sell goods by retail to the general public from fixed premises (i.e. shops, rooms, kiosks and yards). Certain types of "service" establishments were also included, e.g., boot repairers, hairdressers, motor garages, and service stations and cafés. The censuses included the retail sales of those factories or wholesalers who conducted a regular retail business, but excluded those who only occasionally sold goods by retail. Both new and second-hand goods were included in sales recorded by relevant retail establishments.



Particulars of retail sales obtained from the census are designed principally to cover sales to the final consumer of goods generally used for household and personal purposes. For this reason, sales of building materials, farm and industrial machinery and equipment, earth-moving equipment, etc., have been excluded from the censuses. For the same reason, and also because of difficulties in obtaining reliable and complete reporting, sales of builders' hardware and supplies, business machines and equipment, grain feed, fertilizer and agricultural supplies, and tractors have been excluded from the 1961-62 census. Retail sales of motor vehicles, parts, etc., are included, whether for industrial, commercial, farm or private use.

During the period between censuses, variations in the value of retail sales have been measured by means of quarterly sample surveys. Annual totals derived from these surveys, adjusted to a basis comparable in scope with the 1961-62 census, and some of the results of the 1961-62 census, are included in this section. Previous issues of the Year Book contain considerable detail from the information derived at the 1956-57 census (*see* No. 47, 1961, pp. 1149-52), and the appendix to this issue contains similar detail in respect of the 1961-62 census.

2. **Value of Retail Sales in Each Commodity Group, Australia.**—The following table shows the value of retail sales of goods in each of the commodity groups specified in the years 1956-57 to 1961-62 on a comparable basis throughout. The figures for the years 1956-57 and 1961-62 were obtained from the censuses taken in respect of those years, whereas figures for the other years shown are estimates based on sample surveys.

**VALUE OF RETAIL SALES: COMMODITY GROUPS, AUSTRALIA(a)**  
(£ million)

Commodity group	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62
Groceries .. .. .	343.9	358.3	368.7	391.0	416.4	429.1
Butchers' meat .. .. .	170.1	170.8	178.5	193.7	211.3	211.8
Other food (b) .. .. .	282.8	294.5	308.7	335.7	353.7	366.4
<i>Total, Food and Groceries</i> ..	<i>796.8</i>	<i>823.6</i>	<i>855.9</i>	<i>920.4</i>	<i>981.4</i>	<i>1,007.3</i>
Beer, wine and spirits (c) .. .. .	237.9	248.6	247.5	262.8	269.4	273.0
Clothing and drapery .. .. .	380.8	451.0	397.0	433.7	449.7	449.3
Footwear .. .. .	59.3		64.6	72.1	76.8	77.5
Hardware (d) .. .. .	59.4	59.9	65.9	71.1	73.2	73.7
Electrical goods (e) .. .. .	113.0	137.7	155.0	187.0	177.3	174.0
Furniture and floor coverings .. .. .	92.5	97.6	97.8	114.4	116.8	114.8
Chemists' goods .. .. .	76.9	360.0	97.0	108.0	121.5	132.9
Newspapers, books and stationery .. .. .	69.3		72.5	77.9	80.4	83.5
Other goods (f) .. .. .	200.7	205.4		227.3	243.0	246.3
<i>Total (excluding Motor Vehicles)</i>	<i>2,086.6</i>	<i>2,178.4</i>	<i>2,258.6</i>	<i>2,474.7</i>	<i>2,589.5</i>	<i>2,632.3</i>
Motor vehicles, parts, petrol, etc. (g) ..	596.5	645.2	691.6	828.1	826.2	803.1

(a) Excludes Northern Territory and Australian Capital Territory. (b) Includes fresh fruit and vegetables, confectionery, soft drinks, ice cream, cakes, pastry, cooked provisions, fish, etc., but excludes some delivered milk and bread. (c) Excludes sales made by licensed clubs. (d) Excludes basic building materials, builders' hardware, and supplies such as tools of trade, paint, etc. (e) Includes radios, television and accessories, musical instruments, domestic refrigerators, etc. (f) Includes tobacco, cigarettes, jewellery, sporting goods, etc., but excludes grain and produce and business machines. (g) Includes new and used motor vehicles, parts, petrol, etc., but excludes tractors, farm machinery and implements, earth-moving equipment, etc.

## § 5. Statistical Organization in Australia

1. **Early Development of Australian Statistics.**—(i) *Crown Colony "Blue Books."* Statistical organization in Australia was founded in the "Blue Books" which, in the Crown Colony days, were prepared annually for the information of the Colonial Office. Although intended primarily for administrative purposes, these documents have been important.

sources of statistical data, even though some important matters are not covered, and others only partially so. These "Blue Books" formed the basis from which later statistical publications were developed. This led to an element of uniformity in statistical compilation within the British Empire.

(ii) *Statistical Registers.* Following the advent of responsible government, which was granted during the period 1851–1860 to all Australian States except Western Australia—and to that State in 1890—the "Blue Book" was succeeded in all States by "Statistical Registers". These were in many respects the old "Blue Books" in a new form, and were largely confined to summaries of the "by-product" statistics of government administrative departments.

The first example of extensive government organization for purely statistical purposes was the taking of periodic population censuses, which were initiated in all States under the Crown Colony regime. The growing need for quantitative data concerning the progress of the several young communities of Australia led eventually to the appointment of official Statisticians commissioned to prepare and publish such data.

(iii) *Statistical Conferences.* To provide for the interchange of ideas between States and to obtain uniform State statistics which could be aggregated to Australian totals, conferences were held in the several States from as early as 1861. Altogether, six conferences were held prior to the formation of the Commonwealth Bureau of Census and Statistics in 1906. These were held in 1861, 1875, 1890, 1900, 1902 and 1903. The holding of these conferences has been continued since the formation of the Commonwealth Bureau, and a representative from New Zealand attended up to 1928.

2. *Creation of the Commonwealth Bureau of Census and Statistics.*—Under the provisions of section 51 of the Commonwealth Constitution, power is conferred on the Commonwealth Parliament "to make laws for the peace, order and good government of the Commonwealth with respect to—" (*inter alia*) "(XI.) Census and statistics". In compliance with this provision, the *Census and Statistics Act* 1905 was passed, and in 1906 the Commonwealth Bureau of Census and Statistics was created. A conference of Statisticians in 1906 defined the relations between the Commonwealth and State Bureaux, and in each case the State Statistician became the representative in his own State of the Commonwealth Statistician for the purpose of administering the Commonwealth Act. In addition, each State has its own "Statistics Act", and although these are not identical in all States, they embody common principles. The Commonwealth Bureau did not attempt to duplicate the existing statistical organization, but endeavoured to use the services of the State statistical offices whenever possible, and to undertake the initial collection of statistics only in fields not already occupied by the States, or in which efficiency demanded complete centralization.

3. *Integration of Statistical Services.*—The creation and development of the Commonwealth Bureau of Census and Statistics, the frequent conferences of Commonwealth and State Statisticians, and the close and increasing liaison between officers dealing with the same subjects in the State and Commonwealth fields did much to promote uniformity in the official statistical collections and methods employed throughout Australia. The complete realization of this aim could not, however, be achieved, even with the utmost co-operation of those concerned, while seven distinct statistical systems operated.

This became apparent after the 1914–18 War, when the economic problems that then arose drew attention to deficiencies in Australian statistical data. With a view to overcoming these weaknesses, the Prime Minister of the day proposed to the Premiers' Conference that State statistical offices be transferred to the Commonwealth. Tasmania alone agreed to this, and the transfer was effected in 1924. Since then, an amalgamated office has functioned satisfactorily in that State as a Commonwealth office which also serves State statistical needs.

The boom of the 1920's, the depression of the 1930's, the 1939–45 War, and the post-war boom, each with its special economic problems, imposed a severe strain on the Commonwealth and State statistical systems. Moreover, the development during and since the 1939–45 War of a very considerable volume of new statistics added greatly to the complexities of the several administrations in their efforts to secure, and maintain, uniformity in statistical collections. The establishment of Commonwealth statistical offices in some State capitals eased the situation to some extent—indeed, without their establishment, the new and expanded statistical collections could not have been carried out at all. However, this did not solve the problem and constituted only one of a number of improvisations

devised to obtain uniform data essential for national purposes, and to satisfy urgent demands for new series of statistics. Furthermore, the excessive amount of time and effort entailed in such improvisations made it impossible to devote the necessary time to the major question of meeting growing statistical needs promptly.

The emergence of the problem of providing uniform statistical services throughout Australia, adequate to meet present-day demands, was foreseen during the 1939-45 War, and in 1949 discussions with the Premiers were initiated by the Prime Minister, with the object of integrating the statistical services of the Commonwealth and the States by agreement. These negotiations were continued by correspondence, and subsequently all State Governments accepted the terms of draft agreements to integrate their respective statistical offices with that of the Commonwealth.

The *Statistics (Arrangements with States) Act* provided for parliamentary approval of the making of arrangements with individual States for, and the setting up of, integrated statistical services. After passing through all stages of Parliament, it became law on 12th May, 1956. This legislation, permissive in nature, was designed to enable the Commonwealth to enter into an agreement with any State to effect an amalgamation of Commonwealth and State statistical offices and services. The object of such an agreement was that, in each State accepting it, there would be an integrated statistical service operated by Commonwealth statistical officers under the immediate direction of a statistician in the State who would hold office under both the Commonwealth and State Governments. Both Commonwealth and State were to be adequately served with statistics, and no State would be required to surrender its existing powers in the field of statistics. The rights of officers transferred under any agreement entered into were provided for.

Integration of the Commonwealth and State statistical services was finally accomplished when the integration arrangement with Victoria came into effect on 15th September, 1958.

**4. Scope of the Commonwealth Bureau of Census and Statistics.**—The scope of the Commonwealth Bureau of Census and Statistics has constantly been widened, more particularly during the 1939-45 War, when the Bureau responded to the urgent demands of administration for immediate and accurate statistical information in various fields. Since the War, requirements in the administrative, industrial, financial and scientific spheres have led to the development of many new statistical collections. All the activities of the Bureau are covered by the *Census and Statistics Act*, which confers authority to collect information and contains stringent provisions to ensure that the information obtained is treated in strictest secrecy.

For administrative purposes, the Commonwealth Bureau, Canberra, is divided into a number of Divisions and Branches dealing with specific fields of statistics or providing services for the Bureau as a whole. The organizational patterns of the State Offices are broadly similar, although local requirements have naturally given rise to differences in detail.

**5. Relation of the Bureau to other Commonwealth Departments.**—In October, 1950, the Commonwealth Public Service Board issued a circular relative to the compilation of statistics in other Commonwealth Departments, in which it stated that the Commonwealth Statistician should be the co-ordinating authority on all statistics in Commonwealth Departments, and that, as a general principle, where any new statistical field is to be established involving the regular collection of statistics, the Commonwealth Statistician should be consulted to ensure that they are necessary and that they are based on sound statistical methods; furthermore, that the Commonwealth Statistician should make a regular inspection, at least once every twelve months, of all statistical work done by Departments to ensure that their needs are met by the most economical means and without duplication of effort.

This project of co-ordination is being implemented as statistical developments require and as time and circumstances permit.

## § 6. Statistical Publications of Australia

**1. General.**—The official statistical publications of Australia may be divided bibliographically into two main divisions, namely:—(i) Commonwealth publications dealing both individually and collectively with the several States of Australia; and (ii) State publications dealing with individual States only.

Commonwealth publications containing statistics may be grouped under two heads, namely:—(i) publications issued by the Commonwealth Statistician; and (ii) Parliamentary and Departmental Reports and Papers.

2. Publications issued by the Commonwealth Statistician.—The following is a list of the principal statistical publications issued from the Commonwealth Bureau of Census and Statistics since its inauguration.

*Australian Balance of Payments*.—Statements Nos. 1 to 3, 1928–29 to 1951–52.

*Australian Capital Territory Statistical Summary*.—Annually; first issue, 1963.

*Australian Exports*.—Annually, 1958–59 to 1962–63.

*Australian Life Tables*, 1901–1910. *Australian Joint Life Tables*, 1901–1910.

*Australian Life Tables*, 1920–1922.

*Australian Life Tables*, 1932–1934. *Australian Joint Life Tables*, 1932–1934.

*Australian Life Tables*, 1946–1948.

*Australian Life Tables*, 1953–1955.

\* *Australian Mineral Industry, The* (formerly *Minerals and Metals Bulletin*).—Part 2—*Quarterly Statistics* of a quarterly bulletin issued jointly with the Bureau of Mineral Resources.

† *Australian National Accounts, National Income and Expenditure*, 1948–49 to 1961–62.

*Australian Primary Industries*.—Report prepared for the Empire Producers Conference, Sydney, March, 1938.

*Census* (1911) *Results*.—Bulletins. Vols. I. (Statistician's Report), II., and III., with Appendix *Mathematical Theory of Population*.

*Census* (1921) *Results*.—Bulletins, Nos. 1 to 26. Parts I. to XVI., forming Vol. I., and Parts XVII. to XXIX., forming, with the Statistician's Report, Vol. II.

NOTE.—Part XXVII., Life Tables.

*Census* (1933) *Results*.—Bulletins, Nos. 1 to 25. Parts I. to XIV., forming Vol. I., Parts XV. to XXVIII., forming Vol. II., and Parts XXIX. to XXXVII., forming, with the Statistician's Report and Australian Life Tables, 1932–1934, Vol. III.

*Census* (1947) *Results*.—Bulletins, Nos. 1 to 25. Parts I. to XVI., forming Vol. I., Parts XVII. to XIX., forming Vol. II., and Parts XX. to XXVIII., forming with the Statistician's Report and Australian Life Tables, 1946–1948, Vol. III.

*Census* (1954) *Results*.—Bulletins, Nos. 1 to 3. Vols. I. to VI., comprising respectively Parts I. to V. for each State; Vol. VII., comprising Parts I. to V. for the Australian Territories; Vol. VIII., comprising Parts I. to III. for Australia, Australian Life Tables, 1953–1955, and the Statistician's Report.

*Census* (1961) *Results*.—See back pages of this volume for publications already printed; pattern of publication is similar to that for the 1954 Census. A series of mimeographed summaries† has been issued for individual States and Territories, for Australia as a whole, and for particular characteristics of the population.

*Census of Motor Vehicles*, 31st December, 1955.—Bulletins, Nos. 1 to 8.

† *Census of Retail Establishments* (1947–48) *Results*.—Bulletins, Nos. 1 to 7.

† *Census of Retail Establishments* (1948–49) *Results*.—Bulletins, Nos. 1 to 7.

† *Census of Retail Establishments* (1952–53) *Results*.—Bulletins, Nos. 1 to 14.

*Census of Retail Establishments* (1956–57) *Results*.—Bulletins, Nos. 1 to 8 (mimeographed)† and 9 to 15 (printed).

† *Census of Retail Establishments* (1961–62) *Results*.—Bulletins Nos. 1 to 9; Preliminary Statements, Nos. 1 to 8; Supplementary Collections, Nos. 1 and 2 (all mimeographed).

*Classification of Rural Holdings by Size and Type of Activity*, 1959–60.—Bulletins, Nos. 1 to 7.

† *Dairying Industry* (formerly *Summary of Dairying Industry*).—Statistical Bulletin, monthly; first issue, September, 1937.

*Demography*.—Bulletin, annually, 1911 to 1961.

† *Digest of Current Economic Statistics*.—August, 1959 onward.

† *Factories, Principal Statistics, Summary*.—Annually, 1948–49 to 1961–62.

*Finance*.—Bulletin, 1907 to 1916–17 annually; 1917–18 and 1918–19 (one vol.); 1919–20 and 1920–21 (one vol.); 1922–23 to 1960–61 annually. From 1955–56 issued in two parts; Part I., Public and Private Finance; Part II., Commonwealth Taxation.

\* Copies available from the Department of National Development in each capital city (6s. each).

† Distributed by Commonwealth Statistician—for methods of obtaining other publications still in print see back pages of this volume.

- \**Food Production and the Apparent Consumption of Foodstuffs and Nutrients in Australia, Report on.*—Statistical Bulletin, half-yearly, 1946–47 to 1947–48; annually, 1948–49 to 1961–62.
- \**Fruit Growing Industry* (formerly *Summary of Fruit Growing Industry*).—Statistical Bulletin, annually, 1944–45 to 1961–62.  
*Imports Cleared for Home Consumption.*—Annually, 1950–51 to 1962–63.  
*Labour and Industrial Statistics.* Memoranda and Reports, various, to 1913.  
*Labour Report.*—Annually, 1913 to 1961.
- \**Livestock Numbers* (formerly *Summary of Livestock Statistics*).—Statistical Bulletin, annually, 1943 to 1963.  
*Local Government in Australia.*—July, 1919.
- \**Manufacturing Industries.*—Bulletins on Individual Industries, annually, 1936–37 to 1939–40, 1940–41 (issue incomplete) and 1944–45 to 1961–62.†  
*Monthly Review of Business Statistics.*—October, 1937 onward.  
*Northern Territory Statistical Summary.*—Annually since 1960.
- \**Occupation Survey* (1945) *Results.*—Detailed tables.  
*Official Year Book of the Commonwealth of Australia.*—Annually, 1907 to present issue (No. 49). Issues Nos. 40 to 49 also published in parts.  
*Oversea Trade.*—Bulletin, annually, 1906 to 1962–63.
- \**Oversea Trade.*—Preliminary Bulletin. Annually, 1952–53 to 1962–63.  
(See also *Australian Exports and Imports Cleared for Home Consumption.*)  
*Pocket Compendium of Australian Statistics* (formerly *Statistical Digest*).—1913, 1914, 1916, and 1918 to 1963, annually.  
*Population and Vital Statistics.*—Bulletins and Reports, various, 1906–1910.  
*Primary Industries.*—Bulletins, annually, 1950–51 to 1960–61, in two parts—Part I. Rural Industries; Part II. Non-Rural Industries and Value of Production.  
*Production.*—Bulletin, annually, 1906 to 1949–50. From 1936–37 to 1949–50 issued in two parts—Part I. Secondary Industries; Part II. Primary Industries (including Total Recorded Production); thereafter separate Bulletins (see *Primary Industries and Secondary Industries*).  
*Professional Papers.*—Various. A full list appears in Official Year Book No. 13, page 3.  
*Quarterly Summary of Australian Statistics* (replaced *Monthly Summary of Australian Statistics*).—December, 1917 onward.
- \**Report of Proceedings of the Conference of British Commonwealth Statisticians*, 1951.
- \**Rural Land Use and Crop Production* (formerly *Summary of Crop Statistics*).—Statistical Bulletin, annually, 1943–44 to 1961–62.  
*Secondary Industries.*—Bulletin, annually, 1950–51 to 1960–61 (1960–61 in two parts—Part I. Factory and Building Operations; Part II. Materials Used and Articles Produced in Factories).
- \**Size Classification of Rural Holdings*, 1955–56.—Bulletins Nos. 1 to 7.  
*Social Insurance.*—Report to the Hon. the Minister for Trade and Customs, 1910.  
*Social Statistics.*—Bulletin, 1907 to 1915 annually, and 1918.  
*Superannuation for the Commonwealth Public Service.*—Report to the Hon. the Minister for Home Affairs, 1910.
- \**Survey of Motor Vehicles* (1947–48) *Results.*—Bulletins Nos. 1 to 7.  
*Transport and Communication.*—Bulletin, 1906, 1908 to 1916 annually, 1919 to 1930 annually, and 1932 to 1961–62 annually.  
*Wealth.*—The Private Wealth of Australia and its Growth as ascertained by various methods, together with a Report on the War Census in 1915.

\* Distributed by the Commonwealth Statistician—for methods of obtaining other publications still in print see back pages of this volume. † The series for 1961–62 comprises:—Nos. 1. Cement and Cement Goods, 2. Bricks, Tiles, Pottery and Earthenware, 3. Chemicals, Drugs and Medicines, 4. White Lead, Paints and Varnish, 5. Chemical Fertilizers, 6. Soap and Candles, 7. Basic Metal Industries, 8. Metal Fabricating Industries, 9. Motor Vehicles and Cycles, 10. Cotton Mills, 11. Woollen Mills, 12. Rope and Cordage, 13. Tanneries, 14. Boots and Shoes, 15. Clothing (including Hosiery and Knitted Goods), 16. Flour and Other Grain Mills, 17. Biscuits, 18. Confectionery, 19. Jam, Fruit, Vegetables Pickles, Sauces, Condiments, etc., 20. Bacon Curing, 21. Butter, Cheese and Condensed, Concentrated, etc., Milk, 22. Aerated Waters and Cordials, 23. Meat and Fish Preserving, 24. Breweries, 25. Wineries and Distilleries, 26. Tobacco, Cigars and Cigarettes, 27. Sawmilling, 28. Pulp and Paper Making, 29. Rubber Works, 30. Brooms and Brushes, 31. Electric Light and Power Works, 32. Gas Works, 33. Plastic Moulding and Products, 34. Leather Goods (including Saddlery and Belting).

\* *Wheat Industry* (formerly *Summary of the Wheat Situation*).—Statistical Bulletin, periodically; first issue, July, 1936.

\* *Wool Production and Utilization*.—Bulletin, annually, 1952–53 to 1961–62.

The foregoing list includes all the printed publications issued from the Bureau, and certain more important mimeographed publications issued for the most part annually. Minor changes in the titles of several publications have not been referred to above. Copies of a number of these publications, particularly earlier issues, are not available.

Other mimeographed statements are distributed by the Commonwealth Statistician and deal with a wide variety of subjects, as follows.

*Annually*.—Bee Farming; Consumption of Tea and Coffee; Factory Products (Principal); Factory Statistics (Preliminary); Fire, Marine and General Insurance; Fishing and Whaling; Livestock Statistics (Preliminary); Milking Machines on Rural Holdings; Mining and Quarrying; Oversea Investment; Registrations of New Motor Vehicles; Taxation Collections; Trade of Australia with Eastern Countries; Rural Statistics of the Australian Capital Territory; Tractors on Rural Holdings; University Statistics; Value of Primary Production (Preliminary); Value of Production and Indexes of Prices and Quantum of Farm Production; Wheat Industry; Wine and Brandy Statistics; Wool Production; Agricultural Statistics (Preliminary).

*Half-yearly*.—Australian Balance of Payments; Capital and Maintenance Expenditure; Labour Turnover; Trade of Australia with the United Kingdom; Road Traffic Accidents.

*Quarterly*.—Aerial Agriculture; Australian Oversea Trade with Major Groups of Countries; Balance of Payments; Building; Building—Australian Capital Territory; Building—Northern Territory; Consumer Price Index; Instalment Credit for Retail Sales; National Income and Expenditure; New Agricultural Machinery; New Capital Raisings; New Tractors; Retail Sales of Goods; Unit Trusts, Land Trusts and Mutual Funds.

*Monthly*.—Banking (General); Building Approvals; Employment; Exports of Wool; Export Price Index; Gold Mining Industry; Instalment Credit for Retail Sales; Life Insurance; Meat Industry; Oversea Trade; Production Statistics; Production Summaries†; Registrations of New Motor Vehicles; Retail Sales of Goods (Total); Savings Banks; Wage and Salary Earners in Civilian Employment; Wage Rates and Earnings; Wholesale Price (Basic Materials and Foodstuffs) Index.

*Periodically*.—Census (1961) Results (summarized mimeographed bulletins); *Demographic Review*; *Social Statistics*.

In addition to the above-mentioned publications, most of which are issued regularly, there have been a number of statements issued by this Bureau which contain the results of special surveys or new statistical series and descriptions thereof. The more important of these are listed below.

*Occasional Publications*.—Special Business Surveys—No. 1. Average Wage and Salary Earnings (1947); No. 2. Incidence of Industrial Awards (1948); No. 3. Part-time Employment (1948); No. 4. Methods of Payments to Employees (1949); No. 5. Receipts and Payments of Rent, Interest and Royalties, 1949–50; No. 6. Average Wage and Salary Earnings (1952); No. 7. Private Superannuation Schemes, 1951–52 (reprinted in *Finance Bulletin* No. 44); No. 8. Incidence of Industrial Awards (1956); No. 9. Private Pension

\* Distributed by the Commonwealth Statistician—for methods of obtaining other publications still in print see back pages of this volume.

† The current series comprises:—Nos. 2. Chemicals, etc., 3. Plastic and Synthetic Resins and Plasticisers, 4. Paints and Other Surface Coatings, 6. Soap, Detergents and Glycerine, 7. Internal Combustion Engines, 8. Lawn Mowers, 8A. Storage Batteries, 9. Electric Motors, Electric Appliances, Wireless, Television, etc., 10. Motor Bodies and Trailers, 10A. Assembly of Motor Vehicle Chassis, 11. Pedal Cycles, 12. Meters, 13. Building Fittings, 14. Cotton Goods, 15. Woolscouring, Carbonizing and Fellingmongering, 16. Woollen and Worsted Carding, Combing and Spinning, 17. Wool Weaving, 18. Hosiery, 19. Men's and Boys', Women's and Maids', Girls', Infants' and Babywear, Shirts, Cardigans, Pyjamas, Underclothing, etc., 20. Rayon and Synthetic Fibre Woven Fabrics and Spun Synthetic Yarns, 21. Paper and Paper Board, 22. Floor coverings, 24. Men's, Youths' and Boys' Outer Clothing, 25. Foundation Garments, 27. Gloves (other than Rubber), 28. Footwear (excluding Sandshoes, Goloshes, Boots of Rubber), 29. Biscuits, Ice Cream, Confectionery, 32. Perambulators (including Pushers and Strollers), 34. Radios, Television and Cabinets, 35. Mattresses, 36. Preserved Milk Products, 38. Canned Fish, 39. Jams and Preserved Fruit and Vegetables, 40. Cereal Breakfast Foods, Cereal Products and Flour Milling, 41. Margarine and other Edible Processed Fats, 42. Malt and Beer, 43. Stock and Poultry Meals (Other than Cereal), 45. Gramophone Records, 47. Aerated and Carbonated Waters, Cordials and Syrups and Concentrated Cordial Extract, 48. Sports Goods, 49. Building Materials, 51. Hides and Skins used in Tanneries, 54. Flour Mills, 55. Butter and Cheese, 56. Canned Meat, 57. Steel Wire and Wire Products.

and Retiring Allowance Schemes, 1955-56 (reprinted in *Finance, Part I*. Bulletin No. 47); No. 10. Receipts and Payments of Interest, Rent and Royalties, 1956-57; No. 11. Private Pension and Retiring Allowance Schemes, 1955-56 to 1957-58; No. 12. Private Pension and Retiring Allowance Schemes, 1955-56 to 1958-59; No. 13. Selected Large Private Pension Schemes, 1955-56 to 1960-61; No. 14. Private Pension and Retiring Allowance Schemes, 1960-61; No. 15. Selected Large Private Pension Funds, 1955-56 to 1961-62.

Survey of Wage Rates and Earnings, September, 1960; A Description of the Consumer Price Index (1961); Survey of Weekly Earnings, October, 1961; Wage and Salary Earners in Employment, June, 1947, to June, 1960; Minimum Weekly Wage Rates, 1939 to 1959; Minimum Weekly Wage Rates, January, 1960 to June, 1962; Survey of Retail Establishments, Australian Capital Territory, 1960-61; Survey of Weekly Earnings and Hours, October, 1962; Survey of Retail Establishments, Australian Capital Territory, 1962-63.

Further information on current publications of the Commonwealth Bureau of Census and Statistics is contained in *Publications of the Commonwealth Bureau of Census and Statistics*, February, 1963, available free, on request, from the Commonwealth Statistician, Canberra. This contains a list of all Bureau publications and also a subject index to show the publications in which information on the various subjects dealt with by the Bureau is to be found. Publications issued by the State Offices of the Commonwealth Bureau of Census and Statistics are also listed therein.

3. **Publications issued by the Deputy Commonwealth Statisticians.**—A list of the publications issued by the Deputy Commonwealth Statistician of each State appears in Year Book No. 48 (see p. 1163) and in *Publications of the Commonwealth Bureau of Census and Statistics*, February, 1963.

4. **Commonwealth and State Parliamentary and Departmental Reports and Papers.**—No comprehensive list of current publications of this nature is available, but the Commonwealth National Library issues an annual publication *Australian Government Publications*, a list of official publications of the Commonwealth, States and Territories, compiled from records of material received by the Library during the year.

# DIARY OF PRINCIPAL ECONOMIC EVENTS, 1962-63

The principal economic events in earlier years were shown in the following issues:—

YEARS	OFFICIAL YEAR	BOOK No.	PAGES
1931 to 1938 .. .. .	33	.. .. .	968-77
1939 to 1944 .. .. .	36	.. .. .	1129-41
1945 to 1948 .. .. .	37	.. .. .	1235-45
1949 to 1951 .. .. .	39	.. .. .	1331-40
1952 to 1955 .. .. .	42	.. .. .	1149-60
1956 to 1958 .. .. .	46	.. .. .	1185-92
1958-59 to 1961-62 .. .. .	48	.. .. .	1188-1200

To conserve space, information for years prior to 1962-63 has been omitted from this issue.

At the beginning of the year, there were 46,324 persons in receipt of unemployment benefit, the average number of dwelling approvals each month was still about 1,600 below the level reached in 1959-60, and the average wholesale price (basic materials and foodstuffs) index for 1961-62 was the lowest since 1955-56. During the year, however, unemployment dropped, registrations of new motor vehicles rose, and economic indicators generally showed an improvement.

By June, 1963, the number of persons in receipt of unemployment benefit had fallen to 38,188 and the value of retail sales during the June quarter, 1963, was nearly three per cent. higher than that in the same quarter of 1962. The value of new buildings commenced rose from £430 million in June, 1962, to £443 million in June, 1963, and registrations of new motor vehicles averaged over 6,000 a month more in 1962-63 than in the previous year.

There was marked industrial development during the year, and plans for the construction of large scale plants were announced by a number of companies. In particular, the discovery of payable oil supplies and extensive bauxite deposits, combined with increased demand for oil and alumina, were followed by planning for large scale refining plants for these industries.

Imports rose again during the year and exceeded exports by £8.8 million, although shipments of coal to Japan and wheat to Mainland China helped to maintain exports at a high level. Apparent capital inflow (including balancing item) rose from £87 million in 1961-62 to £288 million in 1962-63, and international reserves rose by £65 million to £626 million.

In the rural industries, the production of wheat, 307 million bushels, and milk, 1,480 million gallons, were at record levels, while wool production was only slightly below the record figure for the previous season.

In the first half of 1963, deposits with trading banks were at record levels, being consistently above the £2,000 million mark, while depositors' balances in savings banks were also rising and exceeded £2,000 million for the first time in July, 1963. Balances owing on hire-purchase transactions were still below peak levels but other forms of instalment credit had increased and the total instalment credit for retail sales outstanding in June, 1963, was £625 million.

*1st July.*—Commonwealth negotiated loan in United States of \$30 million, issued at \$97½ for \$100 with interest at 5½ per cent. per annum, fully subscribed.

*9th July.*—Australia-New Zealand section of Commonwealth Pacific Cable opened.

*12th July.*—Meeting of Federal and State Ministers discussed proposal to establish a Water Resources Council (*see* p. 277).

*16th July.*—Short-term Treasury notes maturing 13 weeks after date of issue introduced in lieu of Seasonal Treasury notes previously on issue. The price of issue was £99 2s. giving a yield of approximately £3 12s. 10d. per £100 per annum.

*18th July.*—European Launching Development Organization announced plans to spend £75 million on a five-year satellite plan for Woomera.

*24th July.*—Australian Dairy Produce Board announced agreement with New Zealand on prices for dairy produce exported.



*27th July.*—South Australian Minister of Works and Marine announced plans to construct bulk handling plant at Port Adelaide to handle wheat, barley, salt, etc.

*6th August.*—Whale industry at Moreton Island (Queensland) and Norfolk Island suspended operations.

*7th August.*—Commonwealth Budget for 1962–63 introduced into House of Representatives. In 1961–62, receipts of the Consolidated Revenue Fund were £1,641.5 million and expenditure (excluding the payment of £22.2 million to the Loan Consolidation and Investment Reserve) amounted to £1,619.3 million. The main items of revenue (1960–61 figures shown in parentheses) were:—income taxes, £828.2 million (£807.3 million); excise duties £265.6 million (£257.4 million); customs duties £85.2 million (£101.8 million); sales tax £148.8 million (£173 million); and pay-roll tax £61 million (£61.3 million). The main items of expenditure were:—payments to or for the States £396.6 million (£352.9 million); social and health services £365.2 million (£330.6 million); defence services (excluding £23.6 million provided from loan fund in 1961–62) £203.1 million (£198.2 million); war and repatriation services £104.3 million (£98 million); and capital works and services £161.6 million (£140.9 million).

The Budget for 1962–63 provided for an estimated expenditure of £2,087.7 million, of which £1,614.4 million would be provided from the Consolidated Revenue Fund and £473.3 million from the Loan Fund. In addition, it was expected that £51 million would be available for payment to the Loan Consolidation and Investment Reserve.

*9th August.*—Commonwealth Treasurer announced that rate of oil search subsidy was to be reduced by 40 per cent., but that an additional £3 million in all would be spent.

*10th August.*—Minister for Territories announced details of £4.5 million beef cattle and other road development in Northern Territory.

*17th August.*—State Savings Bank of Victoria raised maximum crédit foncier advance from £3,000 to £3,500, and maximum housing loan by Victorian Government through co-operative building societies was raised from £3,000 to £3,300.

*20th August.*—Commonwealth Government allocated £20 million to meet first year's programme of a five-year plan to accelerate development of Papua and New Guinea.

*21st August.*—Announced that first 40,000 tons of bauxite had been mined at Weipa for export and home consumption.

*29th August.*—Restrictions on exports of scrap iron from Australia lifted.

*30th August.*—1962–63 Budget introduced into Tasmanian House of Assembly. The transactions of the Consolidated Revenue Fund in 1961–62 resulted in a deficit of £400,000. Receipts of the Consolidated Revenue Fund totalled £30.3 million and expenditure £30.7 million. For 1962–63, it was estimated that expenditure would be £32.3 million and revenue £31.5 million, leaving a deficit of £800,000.

*4th September.*—1962–63 Budget introduced into South Australian House of Assembly. In 1961–62, revenue amounted to £93.2 million and expenditure to £92.7 million, leaving a surplus of £500,000. For 1962–63, it was estimated that revenue would be £96.3 million and expenditure £96.9 million, leaving a deficit of £600,000.

*5th September.*—Oil company announced decision to construct 200-mile pipe-line from Moonie oilfield to Brisbane at cost of £5 million. Commonwealth Cash Loan of £50 million issued at £99 12s. 6d. to par, with interest at 4½ per cent. to 5 per cent. per annum, closed 20th September oversubscribed by £30.2 million.

*11th September.*—Prime Minister attended meeting of Commonwealth Prime Ministers in London for discussions on Britain's possible entry to European Economic Community. 1962–63 Budget introduced into Victorian Legislative Assembly. In 1961–62, revenue and expenditure amounted to £153.3 million, with a surplus of £11,000. The Budget for 1962–63 provided for a total expenditure of £205.6 million and revenue of £205 million. Railway operating expenses and income were estimated at £42.9 million and £42.7 million respectively and it was anticipated that the Railway Equalization Account would have to provide the balance of £200,000.

*20th September.*—Northern Territory Administrator announced that an inland port was to be set up on the Adelaide River, near Humpty Doo, 50 miles up river, for shipment of rice.

*26th September.*—1962–63 Budget introduced into New South Wales Legislative Assembly. During 1961–62, the transactions of the Consolidated Revenue Fund, Railways, Metropolitan and Newcastle Transport Services and Maritime Services Board resulted in a

deficit of £3.1 million. After providing for debt charges, there were deficits of £2.4 million on the Railways and £2.8 million on the Metropolitan and Newcastle Transport Services. The 1962-63 Budget provided for an overall surplus of £22,000. After meeting debt charges, it was estimated that there would be a surplus of £4,000 on the Railways and a deficit of £2.5 million on the Metropolitan and Newcastle Transport Services.

*27th September.*—1962-63 Budget introduced into Queensland Legislative Assembly. In 1961-62, receipts of the Consolidated Revenue Fund were £117.3 million. Expenditure was £117.2 million, leaving a surplus of £100,000. For 1962-63, it was estimated that both revenue and expenditure would amount to £121.2 million.

1962-63 Budget introduced into Western Australian Legislative Assembly. Financial transactions for the year 1961-62 resulted in a deficit of £964,000. For 1962-63, it was estimated that expenditure would be £79 million and revenue £78.2 million, resulting in a deficit of £800,000.

*1st October.*—Commonwealth negotiated loan in the United States of \$25 million issued at \$99 for \$100, interest at 5½ per cent. per annum, fully subscribed.

New system of bank charges introduced by trading banks (*see p. 863*).

*15th October.*—Premier of New South Wales announced subsidies, loans, and tax concessions to encourage the decentralization of industry in the State.

*16th October.*—Announced that New Zealand Tariff revisions had resulted in a significant decline in Australian steel exports.

*17th October.*—Minister for Trade announced lifting of all import licensing provisions left in force since February, 1960.

*18th October.*—United States Secretary of Commerce paid official visit to Australia.

*23rd October.*—Minister for Immigration announced a new migrant sponsorship scheme for skilled workers.

*24th October.*—Reserve Bank announced raising of Statutory Reserve Deposit ratio by 1 per cent. to 11.5 per cent.

*31st October.*—Minister for Territories announced discovery of new bauxite field in north-east Arnhem Land with estimated reserves of over 100 million tons.

*13th November.*—Australian Dairy Produce Board contracted to supply £2.3 million worth of dairy products to the Philippines annually for 15 years.

*15th November.*—Contract let for construction of export abattoir at Katherine in Northern Territory, first such abattoir to be built since 1920's.

*23rd November.*—New Sugar Agreement made with Britain providing for an increase of 7s. a ton.

*26th November.*—Contract let for building of 760,000 kW. Murray 1 Power Station at Khancoban in Snowy Mountains.

*6th December.*—Proposals for legislation on restrictive trade practices and monopolies outlined in Commonwealth Parliament.

*2nd January.*—Minister for Trade announced agreement for supply of 100,000 tons of flour annually to Ceylon in 1963 and 1964.

*7th January.*—Survey of iron deposits at Mount Goldsworthy (Western Australia) estimated reserves to be between 150 and 300 million tons.

*11th January.*—Tests of iron ore deposits at Savage River (Tasmania) indicated reserves of 80 million tons.

*16th January.*—Commonwealth negotiated loan in London of £Stg.12 million, issued at £98 to par with interest rate at 5½ per cent. per annum; closed 16th January 18 per cent. subscribed; balance taken up by underwriters.

*31st January.*—Statement by Minister for Trade on discontinuance of negotiations between Britain and members of the E.E.C. concerning Britain's entry into the European Economic Community.

*6th February.*—Commonwealth Cash Loan of £60 million issued at £99 to par, with interest at 4½ per cent. to 5 per cent. per annum oversubscribed by £66.7 million.

*13th February.*—Prime Minister announced composition of, and terms of reference for, Committee of Economic Enquiry appointed to investigate broad aspects of the Australian economy.

**14th February.**—Loan Council met and agreed to an increase of £6 million in total borrowings of local government and semi-governmental authorities with loan programmes of more than £100,000, and an additional £5 million for State works and housing. Commonwealth offered additional interest free grant of £5 million to States for expenditure on employment-giving activities.

**15th February.**—Announced that £21 million oil refinery was to be built in Brisbane, financed by Australian investors only.

**17th February.**—Prime Minister announced approval of special leases for mining of aluminium in Arnhem Land. Alumina plant to be built at cost of £45 million, to handle 500,000 tons of bauxite annually.

**21st February.**—Commonwealth Savings Bank increased limit for housing loans from £3,000 to £3,500.

**26th February.**—Quota of butter exports to United Kingdom increased to 65,100 tons.

**3rd March.**—United States government announced increase of Australian sugar quota by 49,000 tons.

**12th March.**—Tasmanian Parliament approved £50.6 million hydro-electric development plan for Mersey-Forth Rivers area during next eleven years.

**15th March.**—Petroleum Information Bureau reported that Australian refineries now supplied over 87 per cent. of domestic needs for petroleum products besides exporting £22.5 million.

**20th March.**—First meeting of recently formed Australian Water Resources Council (see 12th July).

**22nd March.**—Large underground water supplies discovered in Alice Springs area, capable of irrigating large areas of farm land.

**29th March.**—Reserve Bank announced general reduction in bank interest rates.

**1st April.**—First regular shipments of bauxite made from Weipa to Bell Bay. Commonwealth negotiated loan in United States of \$30 million issued at \$97½ for \$100, interest rate 5 per cent., fully subscribed.

**7th April.**—Minister for Trade left to attend Commonwealth Trade Ministers' Conference in London and ministerial meetings of General Agreement on Tariffs and Trade at Geneva, and to have preliminary discussions *en route* with New Zealand, Canadian, and United States representatives.

**8th April.**—Commonwealth Treasurer announced details of proposed decimal currency (see p. 838).

**11th April.**—Joint Standing Committee of Parliament set up to study reciprocal trade between Australia and New Zealand.

**16th April.**—Commonwealth Treasurer announced increase of Australia's gold subscription to International Monetary Fund to 25 per cent. of its total subscription.

**18th April.**—Decision of Commonwealth Conciliation and Arbitration Commission to vary Metal Trades Award to provide three weeks annual leave to employees and to grant an increase of 10 per cent. in margins effective from 22nd April.

**19th April.**—Prime Minister announced decision to provide finance for standardization of rail link between Broken Hill and Port Pirie.

**22nd April.**—Plans announced for £35 million alumina refinery at Gladstone with annual capacity of 360,000 tons.

**10th May.**—£15 million oil refinery to be built at Western Port Bay (Victoria).

**18th June.**—Loan Council met in Canberra and approved of borrowing programme for 1963–64 of £272,000,000 (£222,150,000 for States, £49,850,000 for Commonwealth-State Housing). Local and semi-government borrowing ceiling fixed at £120,832,000 for authorities with programmes in excess of £100,000 in 1963–64, but no overall limit placed on such authorities borrowing under State approval not more than £100,000 during the year. A programme of £1,950,000 for Commonwealth authorities in the Territories was also approved by the Loan Council. In making these decisions, the Loan Council took into consideration the Commonwealth offer of a special non-repayable interest-free grant of £20 million to be expended by the States on employment-giving activities.

**26th June.**—Contract let for construction of Australian Mint in Canberra.

## CHRONOLOGICAL TABLE

### CHRONOLOGICAL TABLE OF CHIEF EVENTS IN AUSTRALIA SINCE 1945

NOTES.—In previous issues of the Year Book (see No. 48, p. 1201), this table covered events back to the establishment of settlement in Australia in 1788. To conserve space, these details have been omitted from the present volume.

For each earlier year, this Table rarely contains more than two or three items; for recent years, however, in order to provide a wide cover of events, etc., it includes a much greater number. Both the nature of the Table and considerations of space render necessary a continual reduction in these items and for more information the reader should therefore consult earlier issues.

#### Year

- 1945 Captain Cook Dock opened, Sydney. *Re-establishment and Employment Act* passed. Australia ratified United Nations Charter. Cessation of hostilities in Europe, 8th May. Cessation of hostilities against Japan, 15th August.
- 1946 Australian National University founded at Canberra. Constitution Alteration Referendum granted powers in respect of social services to Commonwealth.
- 1947 Census of Australia—first since 1933. Australian National Antarctic Research Expedition established scientific research station at Heard Island. First "displaced persons" reached Australia.
- 1948 Forty-hour week effective throughout Australia. Membership of Commonwealth Parliament increased.
- 1949 *Nationality and Citizenship Act* operative. Broadcasting Control Board came into operation. Commencement of Snowy Mountains Hydro-electric Power Scheme. Australia's population reached 8,000,000.
- 1950 Australian forces in vicinity of Korea were placed at disposal of United Nations to assist South Korea. Adult franchise adopted for Victorian Legislative Council.
- 1951 Transfer of Heard Island and Macdonald Islands to Australia. Double dissolution of Commonwealth Parliament, second in history of the Commonwealth (first in 1914). Security Treaty between United States of America, Australia and New Zealand for action in the event of an armed attack in the Pacific. Opening of new Legislative Council of Papua and New Guinea, including representatives of the indigenes.
- 1952 High grade uranium deposits discovered at Rum Jungle, Northern Territory, and Radium Hill, South Australia. Severe restrictions imposed on imports from all sources and on amounts available for Australians travelling overseas.
- 1953 Atomic Energy Commission established. Britain and Australia signed agreement for reciprocity in social services benefits. Commonwealth Court of Conciliation and Arbitration abandoned the system of automatic adjustment of the basic wage in accordance with retail price index numbers.
- 1954 Her Majesty Queen Elizabeth the Second, with H.R.H. the Duke of Edinburgh, made first tour of Australia by reigning sovereign. Australian National Antarctic Research Expedition established research station at Mawson. Australian population census taken. Australia signed Manila treaty pledging collective defence against aggression in South-East Asia and South-West Pacific.
- 1955 First power generated by Snowy Mountains Hydro-electric Authority. Australian population reached 9,000,000. Cocos (Keeling) Islands became Territory under authority of Commonwealth.
- 1956 Amendment to *Conciliation and Arbitration Act* altered structure of arbitration machinery by separating the judicial functions from the conciliation and arbitration functions. Regular television transmissions commenced in Australia. Olympic games held in Melbourne.

## Year

- 1957 Commonwealth Government representatives and chiefs of private trading banks met in Canberra to discuss changes in the banking system. High Court ruled that interstate vehicles could not be compelled to register in New South Wales, but upheld validity of a Victorian tax on commercial vehicles, including those engaged in interstate trade, imposed solely for the maintenance of roads. National Capital Development Commission set up to co-ordinate development of Canberra as the centre of government.
- 1958 Prime Minister officially opened Australia's first nuclear reactor at Lucas Heights, near Sydney. Eucumbene Dam, in Snowy Mountains Hydro-electric Scheme, completed. Christmas Island (Indian Ocean) transferred to Australian Administration. New South Wales Act passed providing for equal pay for male and female workers performing similar tasks.
- 1959 *Annual Holidays Act* 1944-1958, of New South Wales, provided for three weeks annual holidays for all New South Wales workers. Commonwealth plan for expenditure of £720,000,000 on roads and bridges accepted by Premiers' Conference. Population reached 10,000,000. T1, underground power station, first major station of Snowy Mountains Scheme, commenced operation. Australian Universities Commission constituted. Australia signed Antarctic Treaty at Washington relating to activities in, and the use of, Antarctica.
- 1960 Provision made for Social Service benefits to be paid to Australian aboriginals. *Commonwealth Banks Act* and *Reserve Bank Act* proclaimed (see p. 842). Goods comprising 90 per cent. of Australia's present imports exempted from licensing provisions. Commonwealth Prime Minister's Conference in London. Australia joined International Development Association as foundation member. National Service training ended. National Export Drive. Report of Committee on Decimal Coinage tabled in House of Representatives (see p. 835). Changes made in Constitution of Papua and New Guinea providing for an increase in number of native members of Legislative Council to eleven, including six elected by indigenes. Warragamba and Keepit Dams, New South Wales, opened. Approval given for thirteen country areas to have television stations, one commercial, one national in each. Commonwealth Government announced special economic measures designed to counter inflationary trend and to safeguard overseas funds.
- 1961 Australia's first guided missile base established at Williamstown (New South Wales). Western Australia announced plans for £10,000,000 iron industry to produce iron for export. *Commonwealth Matrimonial Causes Act*, unifying State Acts, became operative (see p. 670). Bank interest rates rose by about 1 per cent. Monash University (Melbourne) opened. Commonwealth Government announced tax concessions to exporters for promotional expenses in developing overseas export markets. New radio telescope, second largest in world, brought into operation at Parkes (New South Wales) for tracking of space probes and radio-astronomy research. Cessation of "C" Series Retail Price Index. Referendum in New South Wales on proposal to abolish Legislative Council defeated. Oil discovered in south-west Queensland. Professional engineers given salary rises, ranging from £2 to £12 a week, by Arbitration Commission. Contract let for construction of dam at Sirinumu Falls in New Guinea, first of a scheme to develop the hydro-electric potential of the Laloki River. Australian population census taken. British Secretary for Commonwealth Relations visited Australia for talks on trade and Britain's possible entry to the European Economic Community (the "Common Market"). Reserve Bank reduced statutory reserve deposits by 1 per cent. to 12½ per cent. New South Wales Government approved plans for implementing Wyndham Report by extending secondary school course to six years from 1962 with additional bursary assistance. Australia sold interest in Tasman Empire Airways Ltd. to New Zealand. Japanese collier loaded 20,400 tons of coal, first shipment of new series of orders. Television licences granted for major provincial and rural areas. Iron ore deposits estimated at 1,800,000,000 tons discovered at Pilbara (Western Australia). Victorian Premier opened first units of £27,000,000 petro-chemical complex at Altona (Victoria).
- 1962 Regular services commenced on new standard gauge railway between Melbourne and Sydney. Five-day week for banks introduced in all States except Victoria. Minister for External Affairs announced that Australia would take up \$4,000,000 of United Nations Bonds. Contract signed for construction of New National Gallery and Cultural Centre in Melbourne. Western Australian Premier signed

## Year

1962—  
contd.

agreement with American companies for 21-year lease to extract and export up to 15 million tons of iron ore from Pilbara deposits. *Commonwealth Electoral Act* amended to provide for votes for aboriginals. New South Wales Government announced details of £6,000,000 plan for flood mitigation on coastal rivers. United States National Science Foundation provided grants of £333,000 over 5 years to assist building of Sydney University's radio telescope near Canberra. Work began on standardization of rail gauge from Kwinana to Kalgoorlie (Western Australia). Co-axial telephone link opened between Melbourne, Canberra and Sydney. Commonwealth Government abolished need for tax clearances for persons leaving Australia for travel overseas. Queensland Government approved raising of school leaving age and extension of secondary school course to five years. C.S.I.R.O. received grant of £245,000 from Ford Foundation for investigation of solar phenomena. Commonwealth provided £1,765,000 grants to States for assistance to Universities in development of training facilities for medical students in teaching hospitals. Prime Minister opened Australia-New Zealand section of Commonwealth Pacific Cable. Cyclones and tornadoes on New South Wales coast caused widespread floods, severe damage to property and some deaths. Australian Army training team went to Viet Nam. Australian troops transferred from Malaya for service in North Borneo. Details announced of £4.5 million beef cattle and other road development in Northern Territory. Commonwealth Government allocated £20 million to meet first year's programme of five-year plan to accelerate development of Papua and New Guinea. First production of bauxite ore from Weipa deposits. Remonstrance, first in Australian history, tabled in Northern Territory Legislative Council. King and Queen of Thailand made State Visit to Australia. Australian Legation in Laos raised to embassy status. A.N.A.R.E. research party left Wilkes base for 1,800 miles trans-Antarctic survey. Act passed by Western Australian parliament giving voting rights to aboriginals. United States Secretary of Commerce arrived in Sydney on official visit. New South Wales Government announced plans to spend £100 million on roads over six years. Minister for Immigration announced new migrant sponsorship scheme for skilled workers. Foote report on political development of Papua and New Guinea published. Australia appointed Mission to European Atomic Energy Commission. Minister for Defence outlined proposals for new defence plan to cost £650 million, providing for increases in the strength of all services. Australian High Commission to Tanganyika established. Prime Minister announced five-year airport development programme to cost £30 million, including international standard jet airport in Victoria. His Royal Highness the Duke of Edinburgh opened Seventh British Empire and Commonwealth Games at Perth. First major International Labour Office Conference held in Australia opened in Melbourne. Proposals for legislation on restrictive trade practices and monopolies outlined in Commonwealth Parliament. Aboriginals exercised voting rights in Northern Territory for first time.

1963 (to 30th June). Australia to purchase four Oberon class submarines from United Kingdom and a third guided missile destroyer from United States. Discontinuance of negotiations between Britain and members of E.E.C. concerning Britain's entry into European Economic Community. Her Majesty, Queen Elizabeth II and His Royal Highness the Duke of Edinburgh made second Royal Tour of Australia and attended the jubilee celebrations of the founding of Canberra. Decision of United States Aeronautics and Space Administration to establish a deep space station in Tiddinbilla Valley near Canberra. Commonwealth Committee of Economic Enquiry appointed to investigate broad aspects of the Australian economy. Announcement of composition and objectives of commission to inquire into higher education in Papua and New Guinea. First meeting of recently formed Australian Water Resources Council. Large underground water supplies discovered near Alice Springs capable of irrigating large areas of farm land. Minister for External Affairs attended S.E.A.T.O. Council in Paris. Approval to agreement for United States to establish, maintain and operate a naval communications station at North West Cape, Western Australia. Commonwealth Treasurer announced details of new decimal currency (see p. 838). Prime Minister announced that Commonwealth would provide finance for standardization of rail link between Broken Hill and Port Pirie. Construction begun of Australian Mint in Canberra.

# STATISTICAL SUMMARY: AUSTRALIA

NOTE.—(1) In most cases where figures are available back to 1861, these were shown in Official Year Book No. 39, pp. xxviii-xxix.

(2) The statistics in this summary relate in general to the periods shown in the table headings; where the statistics relate to other periods, this is indicated in the footnotes.

Item	Year ended 30th June—							
	1902	1912	1922	1932	1942	1952	1962	1963
<b>DEMOGRAPHY(a)—</b>								
Population(b) { '000 males ..	2,005	2,382	2,799	3,333	3,599	4,311	5,355	5,453
'000 females ..	1,820	2,192	2,712	3,220	3,545	4,217	5,249	5,357
'000 persons ..	3,825	4,574	5,511	6,553	7,144	8,528	10,604	10,810
Natural increase .. '000	56.6	74.3	82.1	61.9	63.3	111.5	151.0	143.9
Net oversea migration .. '000	3.0	74.4	17.5	-10.1	5.2	111.4	61.5	62.5
Marriages .. '000	28	39	47	39	75	77	77	79
Divorces(d) and judicial separations .. '000	7.3	8.8	8.6	6.0	10.6	9.2	7.3	7.4
Births .. '000	398	509	1,490	1,969	3,351	7,330	6,711	7,265
Deaths .. '000	103	122	136	119	135	193	240	237
Infant deaths .. '000	27.2	27.2	25.0	18.2	18.9	23.0	22.9	22.1
Deaths .. '000	46	48	54	57	71	82	89	93
Deaths .. '000	12.2	10.7	9.9	8.7	10.0	9.7	8.5	8.7
Infant deaths .. '000	10.7	8.4	9.0	5.0	5.3	4.9	4.7	4.8
Infant deaths .. '000	103.6	68.5	65.7	42.1	39.7	25.2	19.5	20.4
<b>WAGES (ADULT MALES)(b)—</b>								
Minimum weekly wage rate index numbers(f)	(g)	(g)	(g)	(g)	38.5	85.8	129.5	129.7
<b>PRODUCTION—</b>								
<b>Agricultural(h)—</b>								
Wheat .. area mill. acs.	5.1	7.4	9.7	14.7	12.0	10.4	14.7	16.5
yield mill. bus.	39	72	129	191	167	160	247	307
av. yield bus.	7.5	9.6	13.3	12.9	13.9	15.4	16.8	18.6
area '000 acs.	461	617	733	1,085	1,460	2,365	3,097	3,292
Oats .. yield mill. bus.	9.8	9.6	12.1	15.2	22.3	34.5	55.1	68.8
av. yield bus.	21.2	15.5	16.6	14.0	15.3	14.6	17.8	20.9
area '000 acs.	75	116	299	342	784	1,118	2,383	2,027
Barley .. yield mill. bus.	1.5	2.1	6.1	6.3	18.0	21.9	41.5	39.6
av. yield bus.	20.4	17.7	20.4	18.4	23.0	19.6	17.4	19.4
area '000 acs.	295	340	305	269	301	170	211	210
Maize .. yield mill. bus.	7.0	8.9	7.8	7.1	7.4	4.0	7.3	
av. yield bus.	23.9	26.3	25.7	26.2	24.7	23.7	34.6	
area '000 acs.	1,688	2,518	2,995	2,635	2,758	1,549	2,274	2,720
Hay .. yield '000 tons	2,025	2,868	3,902	3,167	3,575	2,345	3,693	4,717
av. yield tons	1.20	1.14	1.30	1.20	1.30	1.51	1.62	1.73
area '000 acs.	110	130	149	145	99	118	94	116
Potatoes .. yield '000 tons	323	301	388	397	333	509	526	
av. yield tons	2.94	2.31	2.60	2.74	3.35	4.31	5.57	
area(i) '000 acs.	87	101	128	242	255	282	387	402
Sugar-cane .. yield '000 tons	1,368	1,682	2,437	4,213	5,154	5,327	9,577	12,736
av. yield tons	15.7	16.7	19.0	17.4	20.3	18.9	24.8	31.7
area '000 acs.	64	61	92	115	130	136	133	134
Vineyards .. wine mill. gals.	5.3	5.0	8.5	14.2	15.6	35.3	41.8	
Total Area of Crops .. mill. acs.	8.4	12.1	15.4	21.2	20.5	19.7	29.6	32.1
<b>Pastoral, dairying, etc.—</b>								
Livestock(j) { horses mill.	1.6	2.3	2.4	1.8	1.6	0.9	0.6	0.6
cattle ..	8.5	11.8	14.4	12.3	13.6	14.9	18.0	18.5
sheep ..	72	97	86	111	125	118	158	159
pigs ..	0.9	1.1	1.0	1.2	1.4	1.0	1.7	1.4
Wool(k) .. mill. lb.	(a) 539	(a) 798	723	1,007	1,167	1,080	1,699	1,663
Butter .. '000 tons	(a) 46	(a) 95	(a) 119	175	168	135	199	203
Cheese .. '000 tons	(a) 5.3	(a) 7.1	(a) 14.6	14.0	30.1	40.6	55.5	58.0
<b>Meat(l)—</b>								
Beef and veal ..	(g)		(g)		339	534	582	791
Mutton and lamb ..					218	307	282	587
Pigmeat ..					51	70	121	85
Total Meat ..					608	727	1,027	949
							1,498	1,614

(a) Year ended previous December. (b) At 31st December of previous year. (c) Number per 1,000 of mean population. (d) Decrees made absolute, including decrees for nullity of marriage. (e) Number per 1,000 live births. (f) New series. Base: Year 1954 = 100. Excludes rural industry. (g) Not available. (h) Season ended in year shown. (i) Cane cut for crushing. (j) As at 31st December of previous year for years to 1942, as at 31st March thereafter. (k) In terms of greasy. (l) Carcass weight in terms of fresh meat.

## STATISTICAL SUMMARY: AUSTRALIA—continued

NOTE.—See headnotes on page 1260

Item	Year ended 30th June—							
	1902	1912	1922	1932	1942	1952	1962	1963
<b>PRODUCTION—continued</b>								
Mineral(a)(b)—								
Copper(c) .. '000 tons	(d)	(d)	(d)	13.5	20.9	18.1	95.6	110.7
Gold(c) .. '000 fine oz.	3,300	2,484	758	595	1,497	896	1,076	1,073
Lead(c) .. '000 tons	(d)	222.0	57.7	162.6	275.5	212.0	269.7	369.9
Zinc(c) .. " "	(e)	190.3	20.7	97.5	170.0	189.2	311.2	337.5
Black coal .. mill. tons	6.9	10.5	12.8	8.4	14.2	17.6	24.0	24.5
Brown coal .. " "	..	(e)	0.1	2.2	4.6	7.8	16.3	17.1
Forestry—								
Sawn output of native timber mill. sup. ft.	(a) 452	(a) 605	590	237	914	1,393	1,352	1,351
Factories—								
Number of factories .. '000	(f)	14.5	18.0	21.7	27.0	45.8	58.5	
Persons employed ..		312	379	337	725	978	1,121	
Salaries and wages paid .. £m.		28	68	56	180	612	1,142	
Net value of production(g)—								
Chemicals, etc. ..	(d)	1.1	3.2	7.9	24.8	63.7	182.2	
Industrial metals, etc. ..		12.0	23.6	22.8	119.9	413.1	887.0	
Textiles, etc. ..		7.5	19.2	6.9	21.0	56.6	105.6	
Clothing ..		11.8	27.2	11.1	23.6	81.1	126.2	
Food, etc. ..		11.8	27.2	28.7	53.2	141.1	297.7	
Paper, etc. ..		4.2	9.0	9.6	17.1	68.2	163.5	
All Groups ..	29.1	47.5	112.5	111.0	316.5	1,024.9	2,197.2	
Value of land and buildings ..	(d)	32.5	67.3	106.6	156.3	360.2	1,403.8	
Value of plant and machinery..		31.4	78.1	121.5	169.2	412.5	1,524.8	
Net value of production(h)—								
Agriculture .. £m.	23.8	38.8	81.9	49.7	64.0	246.7	366.5	
Pastoral ..	27.2	52.7	75.1	43.0	85.4	400.5	481.4	
Dairying ..	7.6	16.1	35.3	22.6	34.3	103.8	136.5	
Poultry ..	2.0	4.0	9.0	5.7	6.5	31.5	26.7	
Bee-farming ..	0.1	0.1	0.1	0.1	0.4	0.8	1.6	
Total, Rural ..	60.7	111.7	201.4	121.1	190.6	783.3	1,012.7	
Trapping ..	(d)	(d)	(d)	1.5	5.0	6.7	5.9	
Forestry ..	2.8	4.8	9.1	3.9	10.2	37.9	51.0	
Fishing and whaling ..		1.1	1.4	1.4	1.8	5.7	14.3	
Mining and quarrying ..	22.0	23.3	20.0	13.5	33.4	97.2	138.0	
Total, Non-rural ..	24.8	29.2	30.5	20.3	50.4	147.5	209.2	
Total, Primary ..	85.5	140.9	231.9	141.4	241.0	930.8	1,221.9	
Factories(g) ..	29.1	47.5	112.5	111.0	316.5	1,024.9	2,197.2	
Total, All Industries ..	114.6	188.4	344.4	252.4	557.5	1,955.7	3,419.1	
OVERSEA TRADE—	(a)	(a)						
Imports .. £m. f.o.b.	38	61	94	52	174	1,053	885	1,081
Exports .. " "	50	79	128	108	169	675	1,077	1,077
Principal exports(i)—								
Wool .. { mill. lb.(j) .. 529 734 946 903 938 1,036 1,460 1,414								
Wheat .. { £m. f.o.b. .. 15 26 48 32 58 323 373 380								
Flour .. { '000 tons .. 543 1,477 2,677 3,413 598 1,685 5,442 4,262								
Butter .. { £m. f.o.b. .. 2.8 9.6 28.6 19.2 4.6 55.3 142.4 108.5								
Hides and skins .. { '000 short tons .. 97 176 360 611 414 789 579 524								
.. { £m. f.o.b. .. 0.6 1.4 5.5 3.8 4.2 33.0 17.4 15.7								
.. { mill. lb. .. 35 102 127 202 130 25 175 175								
.. { £m. f.o.b. .. 1.4 4.6 8.0 10.3 8.1 4.6 23.5 23.8								
.. { " .. 1.3 3.2 3.1 2.3 6.0 17.1 32.2 36.9								

(a) Year ended previous December. (b) Breaks in the continuity of the series occurred in 1931 and 1951. (c) Mine production, i.e., metal content of minerals produced. (d) Not available. (e) Less than 0.05. (f) Owing to variation in classification effective comparison is impossible. (g) For definition see page 182. (h) Gross value from 1901 to 1921-22. Prior to 1922, figures are for years ended previous December. For definitions of gross and net value see page 1235. (i) Australian produce except gold, which includes re-exports. (j) In terms of greasy.



## STATISTICAL SUMMARY: AUSTRALIA—continued

NOTE.—See headnotes on page 1260

Item	Year ended 30th June—							
	1902	1912	1922	1932	1942	1952	1962	1963
<b>OVERSEA TRADE—continued</b>	(a)	(a)						
Principal exports(b)—continued								
Meats .. .. . £m.f.o.b.	2.6	4.3	5.5	6.4	14.1	35.5	89.7	112.9
Fruit(c) .. .. .	0.2	0.5	3.0	4.8	4.0	19.5	35.6	35.5
Sugar .. .. .	(d)	(d)	(d)	2.5	2.6	6.9	33.9	45.5
Gold .. .. .	14.3	12.0	3.5	11.9	9.2	7.0	9.0	6.5
Silver and lead(e) .. .. .	2.3	3.2	2.7	2.9	7.4	32.1	23.5	24.6
Ores and concentrates(f) .. .. .	(d)	3.7	0.8	0.2	1.3	17.0	20.2	15.5
Principal imports—								
Vegetable foodstuffs, etc. .. .. .	3.6	3.7	4.0	2.6	6.1	25.0	28.1	27.8
Apparel, etc. .. .. .	10.9	16.2	31.0	15.4	32.7	203.6	104.2	117.4
Oil, etc. .. .. .	1.2	1.6	4.7	5.5	16.2	87.5	109.9	123.2
Metals, etc. .. .. .	7.8	14.0	22.8	7.4	71.8	393.4	315.3	425.0
Rubber, etc. .. .. .	0.5	1.4	1.7	0.8	3.2	34.0	17.8	21.3
Paper, etc. .. .. .	1.6	2.6	4.4	4.4	4.3	68.8	57.9	69.8
<b>TRANSPORT AND COMMUNICATION—</b>								
Shipping—	(a)	(a)						
Oversea vessels, entrances and clearances } no. mill. tons	4,028	4,174	3,111	3,057	2,544	4,136	7,210	6,763
Oversea cargo—	6.5	10.0	9.1	11.4	10.8	18.2	37.7	37.6
Discharged mill. tons(h)		(g)	2.4	3.0	5.5	14.4	20.3	22.9
Shipped " " (h)		(g)	5.8	6.7	4.2	5.7	18.7	16.9
Interstate vessels, entrances and clearances } no. mill. tons	(g)	9,605	9,782	7,957	9,100	7,524	10,127	9,866
Interstate cargo shipped mill. tons(h)		13.1	12.8	11.1	12.9	15.8	19.7	19.8
Government railways—		(g)	5.5	4.0	10.0	9.0	14.8	15.4
Route-miles (i) .. '000	12.8	16.8	23.5	27.0	27.2	26.8	25.6	25.4
Passenger-journeys .. mill.	115	228	335	303	475	501	443	447
Goods and livestock carried mill. tons	15.5	25.5	31.5	26.1	38.9	44.3	55.6	55.4
Train-miles run .. mill.	38.2	55.2	56.1	63.8	88.5	93.4	92.6	93.0
Tramways and omnibuses—								
Passenger-journeys—								
Trams and trolleybuses mill.		(g)	360	569	874	663	265	
Omnibuses(i) .. .. .		(g)	(g)	(g)	193	356	453	
Motor vehicles on the register(i) .. '000		(g)	102	420	451	1,026	2,185	2,343
Cars .. .. .		(g)	96	96	251	585	868	904
Commercial vehicles .. .. .								
Civil aviation (internal)—								
Plane-miles flown .. mill.				2.5	7.8	41.8	41.2	43.7
Passengers carried .. '000				57	152	1,829	2,666	2,833
Passenger-miles .. mill.				(g)	76	722	1,119	1,221
Freight car—'000 short tons				0.1	1.2	57.5	57.2	59.3
ried .. mill. ton-miles				(g)	0.9	26.7	26.1	28.3
Postal—	(a)	(a)						
Postal matter dealt with(j) .. mill. articles	365	680	778	887	1,124	1,482	2,101	
Telegrams and cablegrams mill.	9.9	13.3	16.8	13.9	26.1	29.8	21.6	
Telephones—								
Instruments .. .. . '000	29	103	259	485	739	1,301	2,383	
Lines .. .. .	25	85	196	364	531	928	1,719	
Calls—trunk .. .. . mill.	(g)	(g)	14.0	28.9	45.3	69.4	76.5	
local .. .. .	(g)	(g)	221	369	664	968	1,650	
Broadcast listeners' licences(l)'000			(k) 36	369	1,320	1,961	2,220	2,240
Television viewers' licences(l)'000							1,424	1,655
<b>PUBLIC FINANCE—</b>								
Commonwealth—								
Consolidated Revenue Fund—								
Revenue .. .. . £m.	11	21	64	72	210	1,017	1,642	1,685
Expenditure .. .. .	4	15	64	72	210	1,017	1,642	1,685
Net loan fund expenditure(m) ..		1	5	4	213	55	91	137
Taxation collections .. .. .	9	16	50	54	180	934	1,417	1,440

(a) Year ended previous December. (b) Australian produce except gold, which includes re-exports. (c) Excludes fruit juices. (d) Less than 0.05. (e) Includes concentrates. (f) Excludes lead and silver-lead ores and concentrates. (g) Not available. (h) Tons weight plus tons measurement. (i) Government and municipal only. (j) Letters, post-cards, letter-cards, newspapers, packets, parcels and registered articles. (k) Year 1923-24. (l) At end of period. (m) Loan expenditure on works, services, etc.

## STATISTICAL SUMMARY: AUSTRALIA—continued

NOTE.—See headnotes on page 1260

Item	Year ended 30th June—							
	1902	1912	1922	1932	1942	1952	1962	1963
<b>PUBLIC FINANCE—continued</b>								
State—								
Consolidated Revenue Funds—								
Revenue .. .. £m.	28	41	85	100	152	388	805	
Expenditure .. .. "	29	41	87	121	149	392	808	
Net loan expenditure(b) .. .. "	9	16	34	6	8	198	198	
Taxation collections .. .. "	3	5	18	33	57	63	177	
Govt. securities on issue(c)—					(d)	(d)	(d)	
Commonwealth .. .. £m.		6	354	319	670	1,919	1,560	1,560
State .. .. "	213	279	519	789	1,019	1,496	2,981	3,157
Total .. .. "	213	285	873	1,108	1,689	3,415	4,541	4,717
Overseas .. .. "	(a)	194	412	522	656	556	712	761
In Australia .. .. "	(a)	91	461	586	1,033	2,859	3,829	3,956
PRIVATE FINANCE—								
Commonwealth note issue (e) £m.	..	8	54	51	103	303	431	440
All cheque-paying banks—								
Advances(f) .. .. "	94	109	183	261	324	817	1,132	1,220
Deposits(f) .. .. "	91	143	289	319	483	1,353	1,941	2,049
Bank clearings(g) .. .. "	338	662	1,702	1,581	2,828	12,160	25,108	27,848
Savings bank deposits(h) .. .. "	31	59	154	198	274	892	1,735	1,970
Life insurance(g)(i)—								
Ordinary—								
Policies .. .. '000	414	484	730	871	1,340	2,554	4,202	
Sum assured .. .. £m.	108	109	181	285	463	1,212	4,372	
Industrial—								
Policies .. .. '000	236	467	973	1,550	2,780	3,843	3,199	
Sum assured .. .. £m.	5	10	30	67	127	254	353	
Total—								
Policies .. .. '000	650	951	1,703	2,421	4,120	6,397	7,401	
Sum assured .. .. £m.	113	119	211	352	590	1,466	4,725	
<b>SOCIAL STATISTICS—</b>								
Commonwealth social services—								
Age and invalid pensions—								
Pensioners .. .. '000(c)	..	90	144	256	336	420	691	711
Amount paid .. .. £m.	..	2.2	5.4	11.1	19.3	59.8	180.2	187.8
Child endowment—								
Endowed children .. .. '000(c)	..	..	..	..	910	2,518	3,395	3,432
Endowment paid .. .. £m.	..	..	..	..	11.3	46.6	66.4	67.7
Total Commonwealth health and social services(j) .. .. £m.	..	2.2	6.1	11.5	30.9	137.6	365.2	379.3
War pensions .. .. '000(c)	..	..	225	274	220	525	670	670
Service pensions .. .. '000(c)	..	..	7.0	7.4	7.5	31.8	61.9	70.5
State social services(k)—								
Education(g)—								
Government schools—								
Schools .. .. '000	7.0	8.0	9.4	10.1	9.5	7.6	7.9	
Staff .. .. "	14.5	17.0	26.1	33.8	32.1	36.7	60.0	
Students .. .. "	638	639	819	937	887	1,013	1,663	
Non-government schools—								
Schools .. .. '000	2.5	1.9	1.7	1.8	1.9	1.9	2.1	
Staff .. .. "	8.3	7.8	8.8	10.0	11.4	13.3	18.2	
Students .. .. "	149	161	199	221	257	326	525	
Universities—								
Number .. .. "	4	5	6	6	8	10	10	10
Staff(l) .. .. "	(a)	249	482	703	1,416	3,132	3,396	3,901
Students .. .. '000	1.8	3.4	8.0	9.8	13.9	31.7	57.7	63.3
Public hospitals—								
Number .. .. "	285	355	404	513	566	675	736	745
Staff—medical .. .. '000	(a)	1.1	1.5	3.2	3.9	6.9	10.4	10.5
nursing .. .. "	(a)	5.1	6.8	9.3	15.4	24.6	37.6	39.1
In-patients, cases treated .. .. (m)	91	134	215	371	595	896	1,225	1,278
<b>POLICE AND PRISONS(g)—</b>								
Police .. .. '000	5.8	6.4	6.9	8.6	9.7	12.3	15.9	16.3
Prisons .. .. (a)	104	91	85	70	69	74	74	
Prisoners .. .. '000	4.3	3.1	2.9	4.2	3.2	4.8	7.2	7.2
<b>PRICES(g)—</b>								
Retail price index numbers(n) .. ..	..	100	168	145	167	313	471	469

(a) Not available.

(b) Loan expenditure on works, services, etc.

(c) At 30th June.

(d) Revised, expressed in Australian currency equivalents at ruling rates of exchange, see p. 955.

(e) At end of June.

(f) Figures are for the June quarter.

(g) Year ended previous December.

(h) At 30th June.

(i) Existing business in Australia.

(j) Excludes war and service pensions.

(k) Includes Northern Territory and Australian Capital Territory.

(l) Teaching and research staff.

Includes part-time until 1952, thereafter full-time only.

(m) South Australia includes Adelaide Hospital only.

(n) Base: 1911 = 100.

## APPENDIX

**NOTE.**—Some recent information which has come to hand since the various chapters were sent to press is given hereunder in summarized form. For further or more detailed information, and for the latest available statistics, reference should be made to other publications issued by this Bureau, e.g., the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, the *Digest of Current Economic Statistics* and the various mimeographed statements issued on particular subjects.

### CHAPTER II. PHYSIOGRAPHY

#### § 2. Climate and Meteorology of Australia

**Rainfall: Australian Capital Cities, p. 48.**—Rainfall recorded in Australian capital cities during 1962 was as follows:—Perth, 28.75 ins.; Darwin, 63.82 ins.; Adelaide, 17.96 ins.; Brisbane, 41.39 ins.; Sydney, 44.90 ins.; Canberra, 28.91 ins.; Melbourne, 23.06 ins.; Hobart, 25.40 ins.

### CHAPTER VI. MANUFACTURING INDUSTRY

#### § 1. General

**Factory Development, p. 184.**—The following table gives a summary of operations in manufacturing industries during 1961–62.

**FACTORIES: SUMMARY, 1961-62**

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
Factories . . . . . No.	23,629	17,300	5,824	5,519	4,418	1,760	58,450
Persons employed(a) . . .	461,087	377,745	101,637	99,094	51,033	30,070	1,120,666
Salaries and wages paid(b) £'000	487,553	384,433	93,345	99,531	46,420	30,720	1,142,002
Value of power, fuel, light, etc., used . . . . .	93,910	49,529	16,066	15,322	10,368	6,570	191,765
„ materials used . . . . .	1,223,666	907,804	305,003	212,561	135,085	71,267	2,855,386
„ production(c) . . . . .	968,694	717,327	175,298	173,914	98,041	63,937	2,197,211
„ output . . . . .	2,286,270	1,674,660	496,367	401,797	243,494	141,774	5,244,362
„ land and buildings . . .	643,483	443,683	89,632	98,297	49,168	79,574	1,403,837
„ plant and machinery . .	670,635	467,887	137,251	126,503	61,716	60,795	1,524,787

(a) Average over whole year; includes working proprietors. (b) Excludes amounts drawn by working proprietors. (c) Value added in process of manufacture (i.e., value of output less value of materials and fuel used).

#### § 8. Value of Production, etc.

**Value of Production, p. 211.**—The values of production (£'000) in Australia for the various classes of industry in 1961–62 were as follows:—

I., 61,237; II., 46,609; III., 182,172; IV., 887,023; V., 7,900; VI., 105,608; VII., 18,597; VIII., 126,175; IX., 297,730; X., 94,084; XI., 34,075; XII., 163,473; XIII., 34,287; XIV., 2,064; XV., 45,544; XVI., 90,633; Total, all classes, 2,197,211.

#### § 10. Principal Factory Products, pp. 217-20

The following table provides an abbreviated list of commodities and the quantities produced in factories in Australia during 1961–62 and 1962–63 (preliminary figures). Figures for 1961–62 may include revisions of figures shown earlier in this Year Book.

**QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES:  
AUSTRALIA**

Article	Unit of Quantity	1961-62	1962-63 p	Article	Unit of Quantity	1961-62	1962-63 p
Acid, sulphuric ..	'000 tons	1,136	1,249	Margarine—			
Beer ..	Mill. gals.	(a) 242	(a) 256	Table ..	'000 lb.	35,262	36,052
Biscuits ..	Mill. lb.	180.0	186.2	Other ..		65,066	67,827
Blankets ..	Thousands	1,689	1,851	Meat, canned(f) ..	Mill. lb.	124.4	93.9
Bricks, clay ..	Millions	992	1,055	Newsprint ..	" "	89.8	91.0
Cement, portland ..	'000 tons	2,809	2,946	Paints, ready mixed and enamels ..	'000 gals.	12,414	12,890
Cloth, woven, woollen (b) ..	Mill. sq. yds.	25.0	28.0	Preserves—			
Confectionery—				Fruit(g) ..	Mill. lb.	450.5	428.8
Chocolate ..	Mill. lb.	77.0	83.7	Vegetables ..	" "	103.5	129.5
Other ..	" "	97.6	98.7	Refrigerators, domestic ..	Thousands	209.4	204.8
Electricity ..	Mill. kWh.	26,275	29,220	Soap ..	'000 cwt.	1,176	1,201
Electric motors ..	Thousands	1,699.9	1,907.2	Socks and stockings—			
Engines, internal combustion(c) ..	Number	213,272	267,919	Men's and youths' ..	'000 doz. pr.	1,419	1,624
Fibrous plaster sheets	'000 sq. yds.	15,332	15,013	Women's ..	" "	3,052	3,625
Flour, wheat ..	'000 tons (2,000 lb.)	1,505	1,446	Children's and infants' ..	" "	902	896
Footwear (rubber)—				Stoves, cooking(h)—			
Boots, shoes and sandals ..	'000 prs.	25,995	26,433	Electric(i) ..	Thousands	72.1	101.8
Slippers ..	" "	9,827	10,445	Gas ..		68.2	68.5
Gas(d) ..	Mill. cub. ft.	51,905	51,040	Solid fuel ..	" "	28.7	26.9
Ice cream ..	'000 gals.	19,221	20,509	Sugar, refined(j) ..	'000 tons	553	565
Iron and steel(e)—				Sulphate of ammonia ..	" "	103.9	95.3
Pig iron ..	'000 tons	3,380	3,399	Superphosphate ..	" "	2,591	2,862
Steel ingots ..	" "	4,076	4,254	Tiles, roofing—			
Jams ..	Mill. lb.	98.4	90.7	Terracotta ..	Millions	50.0	51.1
Lacquers ..	'000 gals.	1,308	1,434	Cement ..	" "	53.2	60.6
Malt, barley and wheat ..	'000 bus.	10,358	10,488	Timber, sawn native(k) ..	Mill. sup. ft.	1,352	1,346
				Tobacco, cigars and cigarettes ..	Mill. lb.	55.9	56.8
				Wool, scoured ..	" "	149	163
				Wool tops ..	" "	46.0	48.4
				Yarn, woollen and worsted ..	" "	46.9	52.8

(a) Includes waste beer. (b) Includes mixture cloths predominantly wool. (c) Excludes motor car, motor cycle, truck, tractor, aeroplane and marine engines but includes diesel and semi-diesel. (d) Made in gas-works only. (e) Year ended 31st May. (f) Excludes canned rabbit and poultry. (g) Includes all types of preserved apples. (h) Domestic. (i) Excludes stovettes, cookers, etc. (j) Year ended 31st March. (k) Includes sawn sleepers.

## CHAPTER IX. POPULATION

### § 3. Growth and Distribution of Population, § 4. Mean Population

Growth of Population, p. 306; Mean Population, p. 313.—Figures for the population at 30th June, 1963, and the mean population for the year ended 30th June, 1963, are as follows.

#### ESTIMATED POPULATION, 30th JUNE, 1963, AND MEAN POPULATION. YEAR ENDED 30th JUNE, 1963

(EXCLUDING FULL-BLOOD ABORIGINALS)

State or Territory	Estimated population at 30th June, 1963			Mean population year ended 30th June, 1963		
	Males	Females	Persons	Males	Females	Persons
New South Wales ..	2,034,734	2,013,864	4,048,598	2,015,028	2,000,435	4,015,463
Victoria ..	1,535,214	1,520,517	3,055,731	1,519,208	1,502,584	3,021,792
Queensland ..	796,170	770,048	1,566,218	790,321	760,983	1,551,304
South Australia ..	509,210	499,784	1,008,994	504,322	494,649	998,971
Western Australia ..	392,598	379,913	772,511	388,786	375,640	764,426
Tasmania ..	182,743	178,577	361,320	183,527	178,584	362,111
Northern Territory ..	17,351	12,073	29,424	16,459	11,145	27,604
Australian Capital Territory ..	38,446	35,007	73,453	36,263	32,954	69,217
<b>Australia ..</b>	<b>5,506,466</b>	<b>5,409,783</b>	<b>10,916,249</b>	<b>5,453,914</b>	<b>5,356,974</b>	<b>10,810,888</b>

## CHAPTER XI. HOUSING AND BUILDING

## § 2. Building

**New Houses, p. 417.**—The number of new houses approved, commenced, completed and under construction in each State and Territory during 1962–63 was as follows.

## NEW HOUSES: NUMBER, 1962-63

(INCLUDING OWNER-BUILT HOUSES)

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Approved ..	27,392	21,819	9,544	9,975	6,393	2,471	396	1,684	79,674
Commenced ..	25,145	20,811	9,027	9,610	6,222	2,442	368	1,592	75,217
Completed ..	25,591	20,328	9,019	9,646	6,593	2,504	432	1,683	75,796
Under construction at 30th June, 1963 ..	10,988	12,063	2,747	4,563	2,879	1,594	239	1,062	36,135

Of the 75,796 new houses completed during 1962–63, 40,194 had outer walls of brick, brick veneer, concrete or stone, 19,212 of wood (weatherboard, etc.), 16,083 of fibro-cement and 307 of other materials.

**New Flats, p. 420.**—The following table shows the number of new flats approved, commenced, completed and under construction in each State and Territory during 1962–63.

## NEW FLATS: NUMBER, 1962-63

(INDIVIDUAL LIVING UNITS)

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Approved ..	7,308	4,203	811	801	1,073	173	27	246	14,642
Commenced ..	6,730	3,662	699	683	876	125	14	263	13,052
Completed ..	5,753	3,772	780	686	642	97	59	162	11,951
Under construction at 30th June, 1963 ..	4,815	2,132	330	328	613	134	19	124	8,495

**Value of New Buildings, p. 423.**—The values of all new buildings approved, commenced, completed and under construction in each State and Territory are shown in the following table for the year 1962–63.

## NEW BUILDINGS: VALUE, 1962-63

(INCLUDING ESTIMATED VALUE OF OWNER-BUILT HOUSES)

(£'000)

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Approved ..	201,617	164,171	64,083	57,562	39,058	17,876	4,627	22,792	571,786
Commenced ..	216,409	158,241	62,326	55,858	40,959	17,306	4,123	20,310	575,532
Completed ..	206,393	166,784	56,347	60,560	43,214	17,064	4,436	19,062	573,860
Under construction at 30th June, 1963 ..	183,413	121,955	34,997	37,866	22,686	14,206	3,677	24,381	443,181

The value of new buildings completed in Australia during 1962–63, according to type of building, was as follows:—*Houses*—Brick, brick veneer, concrete and stone, £165,024,000; wood (weatherboard, etc.), £62,091,000; fibro-cement, £42,126,000; other, £1,034,000; total, £270,275,000; *Flats*—£34,833,000; *Other Buildings*—Hotels, hostels, etc., £18,534,000; shops, £24,556,000; factories, £57,911,000; offices, £35,898,000; other business premises, £22,526,000; educational, £42,777,000; religious, £8,452,000; health, £22,486,000; entertainment and recreation, £16,891,000; miscellaneous, £18,721,000; total other buildings, £268,752,000; grand total, new buildings, £573,860,000.

**Persons Working on Jobs Carried out by Builders of New Buildings, p. 425.**—The number of persons working on jobs *carried out by builders of new buildings* in Australia at 28th June, 1963, was as follows:—Carpenters, 49,376; bricklayers, 14,382; painters, 11,412; electricians, 6,897; plumbers, 11,536; builders' labourers, 19,958; other, 19,307; total, 132,868. Of this total, contractors actually working on jobs numbered 10,330, sub-contractors actually working on jobs, 22,394, and wage earners, 100,144.

## CHAPTER XII. LABOUR, WAGES AND PRICES

### RETAIL PRICES AND PRICE INDEXES

#### § 4. Tabular Statements of Retail Price Index Numbers

**Consumer Price Index, p. 450-2.**—The following table shows Consumer Price Index numbers for June and September quarters, 1963, for each capital city and the six capital cities combined for each Group and all Groups combined.

#### CONSUMER PRICE INDEX NUMBERS(a)

(Base of each Index: Year 1952-53 = 100.0)

Period	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Six Capital Cities (b)
FOOD							
June Quarter, 1963 ..	121.3	125.8	130.2	126.8	124.4	127.0	124.5
September Quarter, 1963	121.2	126.7	131.5	128.0	124.6	128.7	125.0
CLOTHING AND DRAPERY							
June Quarter, 1963 ..	112.0	114.6	117.0	112.1	112.4	114.8	113.4
September Quarter, 1963	112.3	114.9	117.4	112.4	112.6	115.0	113.7
HOUSING							
June Quarter, 1963 ..	155.9	162.7	144.5	156.0	152.6	170.3	156.8
September Quarter, 1963	157.4	163.7	145.1	156.5	153.3	170.7	157.9
HOUSEHOLD SUPPLIES AND EQUIPMENT							
June Quarter, 1963 ..	112.7	114.0	112.9	106.0	107.0	123.8	112.4
September Quarter, 1963	111.0	112.1	111.2	104.0	105.0	123.4	110.6
MISCELLANEOUS							
June Quarter, 1963 ..	129.8	130.1	134.4	121.7	126.1	127.2	129.2
September Quarter, 1963	130.0	130.7	135.2	122.2	126.2	127.3	129.7
ALL GROUPS							
June Quarter, 1963 ..	123.7	126.4	127.9	122.5	122.8	128.2	124.9
September Quarter, 1963	123.7	126.7	128.4	122.8	122.7	128.8	125.1

(a) The index numbers measure price movements in each city individually and for the weighted average of the six capitals. They do not measure differences in price levels as between cities.  
(b) Weighted average.

## WHOLESALE PRICES AND PRICE INDEXES

## § 2. Wholesale Price (Basic Materials and Foodstuffs) Index

Index Numbers, p. 456.—Index numbers for each group of commodities and for All Groups for the index of wholesale prices of basic materials and foodstuffs are shown below for the year 1962-63 and for the months April to September, 1963.

## WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX NUMBERS

(Base of each Index: Average of 3 years ended June, 1939 = 100)

Period	Basic Materials							Foodstuffs and Tobacco (a)	Basic Materials and Foodstuffs		
	Metals and Coal	Oils, Fats and Waxes	Textiles	Chemicals	Rubber and Hides	Building Materials	Total		Goods principally imported (b)	Goods principally home produced (a)	Total All Groups (a)
1962-63	388	209	432	317	262	439	336	342	272	368	340
1963—											
April	389	209	464	316	250	439	338	338	273	365	338
May..	387	209	464	316	246	439	337	343	272	369	340
June..	385	209	474	316	231	444	337	354	271	378	346
July..	385	209	468	316	227	449	338	359	271	382	349
Aug..	383	209	458	283	223	462	336	359	274	380	348
Sept.	383	207	461	283	213	462	335	359	274	379	348

(a) Excludes potatoes and onions. See para. 3 on p. 455. (b) Represents only such imported commodities as are included in the Wholesale Price Index and does not measure changes in the prices of all imports.

## EXPORT PRICES AND PRICE INDEXES

## § 2. The Current Export Price Index

Index Numbers, p. 460.—Index numbers for each of the groups and "All Groups" for the year 1962-63 and for the months April to September, 1963, are shown in the table below.

## EXPORT PRICE INDEX NUMBERS

(Base of each Index: Year 1959-60 = 100)

Period	Wool	Meats	Dairy Produce	Cereals	Dried and Canned Fruits	Sugar	Hides and Tallow	Metals and Coal	Gold	All Groups
1962-63..	104	p 101	88	107	p 90	p 107	72	89	100	p 101
1963—										
April	112	p 98	90	104	88	p 121	69	91	100	p 105
May ..	112	p 100	90	104	88	p 128	68	90	100	p 105
June ..	115	p 102	93	103	p 89	p 165	68	95	100	p 109
July ..	114	p 103	94	103	p 92	p 164	67	94	100	p 109
August	110	p 103	94	102	p 93	p 165	66	96	100	p 107
September	112	p 105	94	102	p 97	p 159	64	94	100	p 108

## WAGES

## § 2. Rates of Wage and Hours of Work

Weekly Wage Rates, pp. 466 and 471.—The following table shows for each State and Australia the weighted average minimum weekly rates of wage payable, and the index numbers based thereon, for adult males and for adult females, at 31st March and 30th June, 1963.

## WEEKLY WAGE RATES: ADULT MALES AND FEMALES

WEIGHTED AVERAGE MINIMUM WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK  
(EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

Date	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	Aust.
------	--------	------	--------	----------	----------	------	-------

## ADULT MALES—RATES OF WAGE

	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>
31st March, 1963 ..	374	3	363	8	359	8	356	6	365	4	364	5
30th June, 1963 ..	378	8	368	5	364	10	360	10	368	5	368	11
											371	4

## ADULT MALES—INDEX NUMBERS

(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100)

31st March, 1963 ..	132.5	128.8	127.4	126.2	129.4	129.0	129.9
30th June, 1963 ..	134.1	130.5	129.2	127.8	130.5	130.6	131.5

## ADULT FEMALES—RATES OF WAGE

	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>
31st March, 1963 ..	269	11	256	8	255	8	252	4	261	2	248	4
30th June, 1963 ..	271	11	259	5	258	3	253	6	262	10	249	3
											261	10
											264	0

## ADULT FEMALES—INDEX NUMBERS

(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100)

31st March, 1963 ..	135.6	128.9	128.4	126.7	131.2	124.7	131.5
30th June, 1963 ..	136.6	130.3	129.7	127.3	132.0	125.2	132.6



### § 4. Surveys of Wage Rates, Earnings and Hours

Survey of Weekly Earnings and Hours, October, 1962, p. 482.—Reference was made in Chapter XII to the publication in this Appendix of further particulars of this survey. These had not been prepared when the Appendix went to press.

### § 5. Basic Wages in Australia

State Basic Wages, p. 506.—The following table shows State basic wages operative in August, 1963.

STATE BASIC WAGES: WEEKLY RATES

State and area	August, 1963		
	Date of operation(a)	Males	Females
New South Wales .. .. .	Aug., 1963	<i>s.</i> <i>d.</i> 303 0	<i>s.</i> <i>d.</i> 227 6
Victoria(b) .. .. .	(c)	287 0	215 0
Queensland—			
Southern Division—			
Eastern District, including Brisbane ..	6.5.63	286 0	214 6
Western District .. .. .	6.5.63	296 6	222 6
Mackay Division .. .. .	6.5.63	295 0	221 3
Northern Division—			
Eastern District .. .. .	6.5.63	296 6	222 6
Western District .. .. .	6.5.63	318 6	239 0
South Australia(d) .. .. .	10.7.61	283 0	212 0
Western Australia—			
Metropolitan Area .. .. .	29.7.63	301 6	226 1
South-West Land Division .. .. .	29.7.63	299 11	224 11
Goldfields and other areas .. .. .	29.7.63	294 1	220 7
Tasmania(b) .. .. .	July, 1961(e)	294 0	220 6

(a) Where dates are not quoted, wage rates operate from the beginning of the first pay-period commencing in the month shown. (b) No basic wage declared. Rates shown are those adopted by most Wages Boards. (c) During July and August, 1961, Wages Boards adopted the Commonwealth rate. (d) The "living wage" declared for the metropolitan area is also adopted for country areas, except at Whyalla and nearby areas, where a loading of 5s. for adult males is generally payable. (e) Most Wages Boards adopted the Commonwealth rates from July, 1961.

The Commonwealth basic wage is still the same as that operative from 7th July, 1961 (p. 500).

### § 6. Wage Margins<sup>(1)25</sup>

Margins Case, 1963, p. 510.—On 5th February, 1963, the Commonwealth Conciliation and Arbitration Commission, constituted by Kirby C.J. (President), Moore and Ashburner JJ. (Deputy Presidents) and D. G. Apsey, C.C. commenced hearing an application for an increase in margins payable under the Metal Trades Award.

Judgment was delivered on 18th April, 1963, the order of the Commission being that margins for all classifications (other than 252u) in clause 4 of the Metal Trades Award be increased by ten per cent., calculated to the nearest shilling, the increases to operate from the beginning of the first pay-period commencing on or after 22nd April, 1963, and to remain in operation until 21st April, 1964.

### § 7. Leave

**Three Weeks' Annual Leave Inquiry, 1963, p. 514.**—On 5th February, 1963, the Commonwealth Conciliation and Arbitration Commission, constituted by Kirby C.J. (President), Moore J. (Deputy President) and D. G. Apsey, C.C., commenced hearing an application, which had been adjourned from 30th May, 1962, to vary the Metal Trades Award to provide three weeks' paid annual leave instead of two.

The Commission's judgment, delivered on 18th April, 1963, provided for a period of 21 consecutive days' leave for employees who had completed twelve months' continuous service by or after 30th November, 1963, and for proportionate leave for periods of one month and over in respect of employment after 1st June, 1963.

The application of the new standard of annual leave for secondary industry in other federal awards was a matter for individual Commissioners, upon proper application being made for variation.

## EMPLOYMENT AND UNEMPLOYMENT

### § 1. Employment

**Wage and Salary Earners in Civilian Employment, p. 517.**—On page 517 it is stated that revised particulars of wage and salary earners in civilian employment will appear in this Appendix. However, the figures were not available at the time of going to press, and it has not been possible to include them in this issue.

## CHAPTER XIII. OVERSEA TRADE

### § 1. Legislation Affecting Oversea Trade

**Trade Agreements.**—*Japan, pp. 539–40.* Following a review of the Agreement on Commerce between Australia and Japan, a Protocol of Amendment was signed on 5th August, 1963. Under the Protocol, Australia agreed to disinvoke action against Japan under Article XXXV of the G.A.T.T., and thus a full G.A.T.T. relationship is to be established between the two countries. This arrangement will become effective when the Protocol has been ratified by both Governments. Pending this action, both countries agreed to apply the new Agreement provisionally.

The specific undertakings agreed in 1957 have now lapsed and the following commitments entered into.

Japan has:

- (a) undertaken not to accord less favourable import treatment (apart from tariff) for raw wool than for raw cotton;
- (b) stated that it has no present intention of imposing a duty on wool;
- (c) undertaken to continue imports of Australian soft wheat at a stabilized level, and to purchase Australian hard wheat when requirements met;
- (d) stated that it will endeavour to expand opportunities for imports into Japan of Australian sugar, canned meat, leather, motor vehicles, butter and cheese.

Australia has:

- (a) undertaken to consult Japan on temporary protection cases affecting Japanese products—in such consultations, Japan will consider whether the need for temporary protection can be obviated by measures taken in Japan;
- (b) stated that equal opportunities of fair and equal competition are accorded to Japanese products in Australian Government purchases overseas.

The new Agreement will be effective for three years from the date of ratification and thereafter subject to three months notice of termination by either Government. There is provision for consultations to take place at least annually.

### § 9. Direction of Oversea Trade

**According to Countries, p. 550.**—The following table shows particulars of the values of total imports and total exports of Australia, including *bullion and specie*, according to countries of origin or consignment, for the year 1962–63.

**VALUES OF AUSTRALIAN IMPORTS AND EXPORTS: COUNTRIES OF  
ORIGIN OR CONSIGNMENT, 1962-63p  
(£A. '000 f.o.b.)**

Country	Imports	Exports	Country	Imports	Exports
United Kingdom ..	329,195	201,112	Czechoslovakia ..	2,768	4,683
Australian Territories—			France ..	17,778	53,014
New Guinea ..	5,457	11,747	Germany, Federal Republic of	58,616	33,855
Other ..	6,275	10,371	Indonesia ..	28,742	2,622
Brunei ..	5,322	71	Iran ..	19,176	1,907
Canada ..	45,942	19,066	Iraq ..	1,011	442
Ceylon ..	8,503	6,455	Italy ..	19,574	44,036
Hong Kong ..	7,609	20,242	Japan ..	64,690	172,974
India ..	18,056	18,832	Mexico ..	2,569	4,591
Malaya, Federation of	13,637	13,274	Netherlands ..	13,776	6,426
New Zealand ..	17,748	65,534	Norway ..	3,615	2,729
Pakistan ..	5,715	7,058	Poland ..	564	6,216
Singapore ..	3,408	16,840	South Africa ..	8,110	9,492
Other Commonwealth countries	21,093	28,638	Sweden ..	17,912	3,277
<i>Total, Commonwealth Countries</i>	<i>487,960</i>	<i>419,240</i>	Switzerland ..	14,199	875
Arabian States ..	43,755	5,722	United States of America	230,080	132,965
Austria ..	3,330	1,552	Other foreign countries(a)	30,566	82,874
Belgium-Luxembourg ..	6,999	23,029	<i>Total, Foreign Countries</i>	<i>593,458</i>	<i>657,637</i>
China, Republic of—Mainland	5,628	64,356	<i>Total, All Countries</i>	<i>1,081,418</i>	<i>1,076,877</i>

(a) Includes shipments made "for orders" and imports of unknown origin.

According to Major Groups of Countries, p. 552.—The following table shows the trade of Australia during 1962-63 according to major groups of countries.

**OVERSEA TRADE OF AUSTRALIA WITH MAJOR GROUPS OF COUNTRIES,(a)  
1962-63p**

Major groups of countries	£A. '000 f.o.b.	Major groups of countries	£A. '000 f.o.b.
<b>STERLING</b>		<b>OTHER NON-STERLING</b>	
Imports—		Imports—	
From—United Kingdom ..	329,195	From—Countries of the E.E.C. ..	118,588
Other Sterling Area Coun- tries ..	144,759	Countries of the E.F.T.A. ..	49,770
Total ..	473,954	Other Countries ..	163,043
Exports—		Total ..	331,401
To—United Kingdom ..	201,112	Exports—	
Other Sterling Area Countries	214,451	To—Countries of the E.E.C. ..	165,313
Total ..	415,563	Countries of the E.F.T.A. ..	11,734
Excess of Exports (+) or Imports (—)	—58,391	Other Countries ..	330,751
<b>NON-STERLING—NORTH AMERICA</b>		Total ..	507,798
Imports—		Excess of Exports (+) or Imports (—)	+176,397
From—United States of America(b)	230,121		
Canada ..	45,942		
Total ..	276,063		
Exports—		<b>ALL GROUPS</b>	
To—United States of America(b) ..	134,450	Total Imports ..	1,081,418
Canada ..	19,066	Total Exports ..	1,076,877
Total ..	153,516	Excess of Exports (+) or Imports (—)	—4,541
Excess of Exports (+) or Imports (—)	—122,547		

(a) For a list of the countries in each group, see page 551.  
Islands.

(b) Includes Alaska and Hawaiian

## § 13. Classified Summary of Australian Oversea Trade

Statistical Classes, p. 558.—The following table shows the values of total imports and total exports in statistical classes for the year 1962–63.

VALUE OF OVERSEA TRADE OF AUSTRALIA: CLASSES, 1962-63 p  
(£A. '000 f.o.b.)

Class	Imports	Exports	Class	Imports	Exports
I. Animal foodstuffs, etc. . .	12,328	168,502	XIII. Rubber and leather, etc. . .	23,329	4,714
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . .	27,751	234,476	XIV. Wood and wicker, etc. . .	17,255	3,070
III. Alcoholic liquors, etc. . .	3,799	2,542	XV. Earthenware, etc. . .	20,178	1,129
IV. Tobacco, etc. . .	12,136	803	XVI. Paper and stationery . .	69,807	4,386
V. Live animals . . .	667	1,659	XVII. Jewellery, etc. . .	14,152	4,183
VI. Animal substances, etc. . .	6,229	417,852	XVIII. Optical, surgical and scientific instruments . .	18,718	3,137
VII. Vegetable substances, etc. . .	23,855	1,958	XIX. Chemicals, medicinal products, fertilizers, etc. . .	69,856	10,659
VIII. Apparel, textiles, etc. . .	117,354	4,602	XX. Miscellaneous . . .	76,351	33,728
IX. Oils, fats and waxes . .	123,213	31,968	<i>Total, Merchandise</i> . .	<i>1,078,857</i>	<i>1,069,996</i>
X. Pigments, paints and varnishes . . .	7,241	1,418	XXI. Gold and silver; bronze specie . . .	2,561	6,881
XI. Rocks, minerals, etc. . .	9,601	35,243	<b>Grand Total</b> . .	<b>1,081,418</b>	<b>1,076,877</b>
XII. Metals, metal manufactures and machinery . .	425,037	103,967			

Imports of Principal Articles, p. 559.—The following table shows the values of the principal articles imported into Australia during 1962–63.

IMPORTS OF PRINCIPAL ARTICLES: AUSTRALIA, 1962-63 p

Article	Value
	£A. '000 f.o.b.
Aircraft and parts . . . . .	13,488
Apparel . . . . .	9,614
Arms, explosives, military stores, etc. . . . .	6,846
Bags and sacks . . . . .	9,398
Chemicals, medicinal and pharmaceutical products, essential oils and fertilizers . . . . .	69,856
Cotton, raw, excluding linters and waste . . . . .	6,394
Electrical machinery, appliances and equipment . . . . .	59,272
Fibres, excluding cotton . . . . .	9,908
Glass and glassware . . . . .	9,543
Iron and steel—	
Bar and rod . . . . .	6,657
Plate and sheet . . . . .	7,694
Machines and machinery—	
Motive power . . . . .	47,131
Other . . . . .	122,176
Motor vehicles complete; components and parts . . . . .	106,581
Paper, printing . . . . .	19,875
Petroleum and shale oils . . . . .	114,903
Piece-goods—	
Cotton and linen . . . . .	38,356
Other . . . . .	22,360
Plastics materials . . . . .	14,381
Rubber and rubber manufactures . . . . .	21,327
Stationery and paper manufactures . . . . .	23,043
Tea . . . . .	12,529
Timber, undressed, including logs . . . . .	14,057
Tobacco . . . . .	10,346
All other articles . . . . .	305,683
<b>Total Imports</b> . . . . .	<b>1,081,418</b>

Exports of Principal Articles of Australian Produce, p. 560.—The following table shows the quantities and values of the principal articles of Australian produce exported during 1962–63.

EXPORTS OF PRINCIPAL ARTICLES OF AUSTRALIAN PRODUCE, 1962-63p

Article	Unit of quantity	Quantity	Value
			£A. '000 f.o.b.
Butter .. .. .	ton	78,088	23,806
Cheese .. .. .	"	29,093	6,106
Chemicals, drugs, fertilizers .. .. .	"	"	10,659
Coal .. .. .	ton	2,599,370	10,846
Fruit—			
Dried .. .. .	"	57,125	9,545
Fresh, including frozen .. .. .	'000 bus.	9,303	14,995
Preserved in airtight containers .. .. .	ton	76,826	10,634
Gold .. .. .	"	"	6,471
Grains and cereals—			
Barley .. .. .	ton	230,411	5,229
Flour (wheaten), plain white .. .. .	ton(a)	524,010	15,691
Wheat .. .. .	ton	4,261,814	108,460
Hides and skins .. .. .	"	"	36,857
Lead, unwrought, n.e.i. .. .. .	ton	167,973	10,951
Machines and machinery (except dynamo electrical) .. .. .	"	"	15,992
Meats preserved by cold process—			
Beef and veal .. .. .	ton	260,766	79,270
Lamb .. .. .	"	25,282	5,182
Mutton .. .. .	"	61,046	11,662
Pork .. .. .	"	215	84
Meats, tinned .. .. .	"	49,828	6,524
Milk and cream .. .. .	'000 lb.	134,779	9,028
Ores and concentrates .. .. .	ton	1,087,125	22,489
Sugar (cane) .. .. .	"	1,156,883	45,522
Wool(b) .. .. .	'000 lb.	1,530,894	379,632
All other articles .. .. .	"	"	208,470
<b>Total Exports (Australian Produce) .. .. .</b>	<b>..</b>	<b>..</b>	<b>1,054,105</b>

(a) 2,000 lb. (b) Quantity in terms of greasy wool.

## § 20. The Australian Balance of Payments, p. 569-71

The table following shows, in summary form, revised balance of payments estimates for the years 1960-61 and 1961-62, and preliminary estimates for 1962-63. Further details will be found in the mimeographed publication *Balance of Payments, 1958-59 to 1962-63*.

## BALANCE OF PAYMENTS: SUMMARY, AUSTRALIA

(£A. million)

Particulars	1960-61	1961-62	1962-63p
<b>CURRENT ACCOUNT(a)—</b>			
Exports f.o.b.(b) .. .. .	925	1,067	1,067
Imports f.o.b.(b) .. .. .	1,035	857	1,034
Balance of Trade .. .. .	-110	210	33
Invisible credits—			
Transportation .. .. .	82	81	88
Travel .. .. .	14	16	15
Property income .. .. .	31	40	34
Government .. .. .	20	22	24
Other .. .. .	63	66	72
Invisible debits—			
Transportation(d) .. .. .	167	139	154
Travel .. .. .	42	41	44
Property income .. .. .	164	148	171
Government .. .. .	26	27	27
Other .. .. .	72	78	84
Balance on Current Account .. .. .	-371	2	-214
<b>CAPITAL ITEMS(a)—</b>			
Inflow of investment—			
Government securities—			
Domiciled overseas .. .. .	12	6	48
Domiciled in Australia .. .. .	-2	-1	(c)
Total, Government Securities .. .. .	10	5	(c)
Companies—			
Undistributed income .. .. .	58	30	(c)
Other direct .. .. .	130	73	(c)
Portfolio .. .. .	48	37	(c)
Total, Companies .. .. .	236	140	(c)
Total Inflow of Investment .. .. .	246	145	(c)
Outflow of investment .. .. .	-5	-7	(c)
Net inflow of investment .. .. .	241	138	(c)
Other official capital movements .. .. .	-20	..	-11
Marketing authorities .. .. .	-3	-33	5
Net identified capital inflow .. .. .	218	105	} (c) 288
Balancing item .. .. .	113	-18	
Net Apparent Capital Inflow .. .. .	331	87	(c) 288
Monetary movements—			
Change in net I.M.F. position .. .. .	-78	79	12
Change in international reserves .. .. .	39	10	65
Other .. .. .	-1	..	-3
Net Monetary Movements .. .. .	-40	89	74

(a) For current account balances minus sign (-) denotes deficit; for capital items other than monetary movements minus sign (-) denotes outflow; for monetary movements minus sign (-) denotes decrease in international reserves or net I.M.F. position or an increase in foreign holdings of Australian currency.

(b) The amounts shown represent the recorded trade figures adjusted for balance of payments purposes. Adjustments affect both coverage and valuation.

(c) Particulars of the Survey of Oversea Investment are not yet available for 1962-63. Relevant items for this period are therefore combined with the balancing item.

(d) Total freight and insurance on imports, whether payable overseas or in Australia, is estimated at £139,000,000 in 1960-61, £113,000,000 in 1961-62 and £129,000,000 in 1962-63.

## CHAPTER XIV. TRANSPORT AND COMMUNICATION

## SHIPPING

## § 3. Oversea Shipping

Total Oversea Shipping, States, p. 576.—The following table shows particulars of the entrances and clearances of vessels direct from, and to, overseas countries during 1962-63.

OVERSEA SHIPPING: ENTRANCES AND CLEARANCES  
OF VESSELS DIRECT, 1962-63p

Particulars		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	No.	1,098	548	626	200	823	83	34	3,412
	'000 net tons	6,219	4,018	2,360	974	5,006	289	99	18,965
Clearances	No.	942	503	775	228	825	49	29	3,351
	'000 net tons	5,841	3,730	2,999	1,083	4,695	198	80	18,626

## § 6. Shipping Cargo

Oversea and Interstate Cargo, p. 582.—The following table shows the quantity of shipping cargo discharged and shipped, according to States, during 1962-63.

CARGO DISCHARGED AND SHIPPED: STATES, 1962-63p  
(‘000 Tons)

State, etc.	Discharged				Shipped			
	Oversea		Interstate		Oversea		Interstate	
	Wt.	Meas.	Wt.	Meas.	Wt.	Meas.	Wt.	Meas.
New South Wales ..	6,539	1,358	6,661	182	4,979	423	3,654	108
Victoria ..	7,197	1,259	2,255	423	2,917	526	1,869	441
Queensland ..	535	251	1,269	109	2,357	105	685	29
South Australia ..	849	341	1,953	58	1,781	207	5,145	21
Western Australia ..	4,027	142	641	95	3,158	140	2,399	32
Tasmania ..	301	46	1,013	438	204	141	586	469
Northern Territory ..	49	..	89	1	7	..	6	..
<b>Australia ..</b>	<b>19,497</b>	<b>3,397</b>	<b>13,881</b>	<b>1,306</b>	<b>15,403</b>	<b>1,542</b>	<b>14,344</b>	<b>1,100</b>

## GOVERNMENT RAILWAYS

Summary of Operations, pp. 591-9.—The following table shows a summary of the operations of government railways for the year 1962-63.

## GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, 1962-63

Particulars	Cwth	N.S.W.	Vic.	Qld (a)	S.A. (b)	W.A. (b)	Tas.	Aust.
Route miles open	2,252	6,055	4,265	6,008	2,532	3,797	515	25,424
Train-miles .. '000	2,549	37,739	19,477	17,664	6,727	7,550	1,322	93,028
Earnings(c)—								
Coaching (passengers, parcels, mails, etc.) £'000	1,182	27,723	14,007	5,644	2,111	1,640	189	52,496
Goods, including livestock and minerals ..	5,331	63,323	26,539	31,004	10,801	14,063	2,522	153,583
Miscellaneous ..	491	195	2,893	(d)	1,001	1,011	88	5,679
<b>Total Earnings(c)</b> ..	<b>7,004</b>	<b>91,241</b>	<b>43,439</b>	<b>36,648</b>	<b>13,913</b>	<b>16,714</b>	<b>2,799</b>	<b>211,758</b>
Working expenses £'000	6,643	79,326	43,500	37,264	15,561	15,574	3,058	200,926
Net earnings ..	+361	11,915	-61	-616	-1,648	1,140	-259	10,832
Ratio of working expenses to earnings .. %	94.85	86.94	100.14	101.68	111.85	93.18	109.24	94.88
Earnings per train-mile ..	54s. 11d.	48s. 4d.	44s. 7d.	41s. 6d.	41s. 4d.	44s. 3d.	42s. 4d.	45s. 6d.
Working expenses per train-mile ..	52s. 2d.	42s. 1d.	44s. 8d.	42s. 2d.	46s. 3d.	41s. 3d.	46s. 3d.	43s. 2d.
Passenger-journeys '000	334	257,757	152,668	25,893	14,922	11,537	1,557	464,668
Freight carried—								
Livestock '000 tons	72	510	294	681	181	125	33	1,896
Coal and coke ..	1,486	9,558	2,120	1,802	60	682	293	16,001
Other minerals ..	58	2,060	92	1,385	1,329	378	24	5,326
Other goods ..	614	11,557	8,335	4,348	2,960	3,608	820	32,242
<b>Total Freight</b> ..	<b>2,230</b>	<b>23,685</b>	<b>10,841</b>	<b>8,216</b>	<b>4,530</b>	<b>4,793</b>	<b>1,170</b>	<b>55,465</b>

(a) Excludes South Brisbane-Border section of the uniform gauge line (69 route miles). (b) Financial details include road motors. (c) Excludes government grants. (d) Included with Coaching. Minus sign (—) denotes loss.

NOTE.—The foregoing table is prepared from quarterly statements supplied by each government railway, and figures therein are not completely comparable with those shown in Chapter XIV. Transport and Communication, which are derived, in the main, from the annual reports of the government railways.

## MOTOR VEHICLES

Motor Vehicle Registrations, pp. 609-10.—Motor vehicles registered at 30th June, 1963, and new motor vehicles registered during 1962-63 were as follows.

## MOTOR VEHICLES: REGISTRATIONS, 1962-63(a)

State or Territory	Number of motor vehicles registered at 30th June, 1963				Number of new motor vehicles registered, 1962-63(b)			
	Motor cars(c)	Commercial vehicles (d)	Motor cycles	Total	Motor cars(c)	Other vehicles	Motor cycles	Total
New South Wales ..	744,800	380,375	19,516	1,144,691	107,085	21,059	1,834	129,978
Victoria ..	e775,894	e185,980	15,197	977,071	77,838	14,260	656	92,754
Queensland ..	301,225	147,543	14,063	462,831	36,472	9,762	1,178	47,412
South Australia ..	248,082	75,736	14,465	338,283	27,513	5,647	859	34,019
Western Australia ..	167,446	76,605	11,190	255,241	23,142	6,367	773	30,282
Tasmania ..	79,670	27,139	1,988	108,797	9,004	2,005	52	11,061
Northern Territory ..	6,315	5,445	420	12,180	631	445	67	1,143
Aust. Capital Territory ..	20,053	4,796	368	25,217	3,241	512	27	3,780
<b>Total</b> ..	<b>e2,343,485</b>	<b>e903,619</b>	<b>77,207</b>	<b>3,324,311</b>	<b>284,926</b>	<b>60,057</b>	<b>5,446</b>	<b>350,429</b>

(a) Excludes Defence Service vehicles, trailers, road tractors, etc., and dealers' plates. (b) This series is not strictly comparable with the Number of Motor Vehicles Registered series. (c) Includes taxis, hire cars and station wagons. (d) Includes utilities, panel vans, lorries and omnibuses. (e) Registration in Victoria is according to purpose and not type of vehicle; consequently, motor car registrations in this series are overstated by the inclusion of commercial vehicles registered for private use.



## CIVIL AVIATION

Statistical Summaries, p. 619.—The following table shows particulars of the operations of regular internal services and overseas services for 1962–63.

**CIVIL AVIATION: OPERATIONS OF REGULAR INTERNAL SERVICES  
AND OVERSEA SERVICES, 1962-63**

Particulars	Regular internal services(a)	Oversea services(b)
Route miles (unduplicated)(c) .. .. .	65,837	71,676
Hours flown .. .. .	217,915	48,651
Miles flown .. .. . '000	43,703	20,340
Paying passengers .. .. .	2,832,934	294,908
Paying passenger-miles .. .. . '000	1,221,179	1,014,866
Freight—		
Tons(d) .. .. .	59,374	6,755
Ton-miles(d) .. .. . '000	28,271	33,134
Mail—		
Tons(d) .. .. .	6,458	2,468
Ton-miles(d) .. .. . '000	3,319	15,190

(a) Includes only services operating within the Australian mainland and Tasmania. (b) Airlines wholly or partly owned by Australian interests. (c) At 30th June, 1963. (d) In terms of short tons (2,000 lb.).

## BROADCASTING AND TELEVISION

## § 4. Licences, etc.

Broadcast Listeners' and Television Viewers' Licences, p. 637.—Broadcast listeners' licences in force at 30th June, 1963, were as follows:—New South Wales, 802,046; Victoria, 607,036; Queensland, 334,566; South Australia, 256,741; Western Australia, 165,637; Tasmania, 73,760; Australia, 2,239,786. Figures for the Northern Territory and the Australian Capital Territory have been included with those for South Australia and New South Wales respectively.

Television viewers' licences in force at 30th June, 1963, were as follows:—New South Wales, 637,766; Victoria, 530,256; Queensland, 178,391; South Australia, 167,502; Western Australia, 95,907; Tasmania, 45,503; Australia, 1,655,325.

## CHAPTER XV. WELFARE SERVICES

## COMMONWEALTH EXPENDITURE ON SOCIAL AND HEALTH SERVICES

## National Welfare Fund, p. 640

The following table shows particulars of payments of social and health services in each State during 1962–63.

**COMMONWEALTH EXPENDITURE FROM NATIONAL WELFARE FUND  
ON SOCIAL AND HEALTH SERVICES, 1962-63**

(£'000)

Service	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.(a)	A.C.T.(a)	Abroad	Aust.
<b>Social Services—</b>										
Age and Invalid Pensions ..	74,505	46,864	29,741	16,976	12,791	5,859	421	401	196	187,754
Child Endowment ..	24,035	18,430	10,229	6,430	5,242	2,523	335	464	22	67,710
Commonwealth Rehabilitation Service ..	196	207	102	99	75	19	..	..	..	698
Funeral Benefits ..	161	108	59	36	25	12	..	..	..	401
Maternity Allowances ..	1,332	1,059	576	343	276	138	24	28	5	3,781
Unemployment Benefits ..	4,088	2,598	2,248	592	719	391	4	11	..	10,651
Sickness Benefits ..	1,392	824	528	263	252	101	5	10	..	3,375
Special Benefits <sup>b</sup> ..	175	278	91	33	32	22	..	..	..	631
Widows' Pensions ..	5,893	3,879	2,611	1,459	1,188	542	33	49	23	15,677
<b>National Health Services—</b>										
Hospital Benefits ..	9,573	5,651	3,385	2,224	2,095	660	30	45	..	23,663
Medical Benefits ..	4,864	3,011	1,209	1,323	1,013	317	..	..	..	11,737
Medical Benefits for Pensioners ..	1,924	1,152	631	422	316	118	..	10	..	4,573
Milk for Children ..	1,315	949	571	355	292	188	30	27	..	3,727
Pharmaceutical Benefits ..	11,573	7,839	4,067	2,334	1,922	727	..	(c) 60	..	28,522
Pharmaceutical Benefits for Pensioners ..	4,276	2,297	1,528	920	659	253	..	..	..	9,933
Tuberculosis Campaign—										
Allowances ..	265	194	191	70	43	40	..	..	..	803
Maintenance and Surveys <sup>d</sup> ..	1,746	1,271	894	376	400	182	..	5	..	4,874
Miscellaneous <sup>(e)</sup> ..	35	51	113	8	12	28	23	(f) 495	..	765
Rental Rebates ..	..	..	19	..	..	..	..	..	..	19
<b>Total ..</b>	<b>147,348</b>	<b>96,662</b>	<b>58,793</b>	<b>34,263</b>	<b>27,352</b>	<b>12,120</b>	<b>905</b>	<b>1,605</b>	<b>246</b>	<b>379,294</b>

(a) Payments for some Health Services to residents of the Northern Territory and the Australian Capital Territory are included in the amounts shown for States. (b) Includes special benefits to migrants in reception and training centres. (c) Includes payments to Flying Doctor Service and Bush Nursing Centres. (d) Paid to the State Governments as a contribution towards the cost of surveys and the maintenance of institutions for the treatment of tuberculosis. (e) This item covers the cost of the Commonwealth Health Laboratory services, subsidies to home nursing services, the cost of radio-active isotopes provided under the *National Health Act* and running expenses of the Blood Fractionation Plant. (f) Includes running expenses of the Blood Fractionation Plant at the Commonwealth Serum Laboratory, £305,000; and subsidies to Home Nursing Services, £144,000.

**COMMONWEALTH SOCIAL SERVICES**

**§ 2. Age and Invalid Pensions, § 3. Child Endowment, § 6. Maternity Allowances, § 7. Unemployment, Sickness and Special Benefits, § 8. Widows' Pensions, pp. 644-53.**

The following table gives a summary of age, invalid and widows' pensions, maternity allowances, child endowment, and unemployment, sickness and special benefits for the year 1962-63.

## SOCIAL SERVICES: SUMMARY, 1962-63

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Age pensioners at end of year ..	237,859	156,578	96,148	56,229	40,661	17,760	1,216	899	607,350
Invalid pensioners at end of year ..	45,111	22,982	15,876	7,927	8,170	3,343	397	232	104,038
Child endowment at end of year—									
Family claims in force	568,346	421,275	216,544	146,377	113,464	53,313	5,217	10,602	1,535,388
Endowed children (a)	1,232,484	938,222	515,628	330,842	270,736	127,664	17422	24,081	3,457,620
Maternity allowances—									
Claims paid during year	82,700	66,021	35,659	21,357	17,152	8,560	1,516	1,789	6235,064
Unemployment, sickness and special benefits—									
Persons admitted to benefit—									
Unemployment benefit ..	74,691	38,892	52,755	11,782	15,115	7,141	230	376	200,982
Sickness benefit ..	25,168	15,820	11,711	5,274	6,008	2,099	122	200	66,402
Special benefit—									
Ordinary ..	862	2,409	747	129	115	111	7	5	4,385
Migrants ..	385	3,030	6	174	247	..	..	..	3,842
Persons on benefit at end of year—									
Unemployment benefit ..	16,834	8,548	5,353	2,441	3,179	1,777	3	53	38,188
Sickness benefit ..	4,524	2,569	1,761	768	907	303	16	28	10,876
Special benefit—									
Ordinary ..	650	1,086	356	140	130	103	3	..	2,468
Migrants ..	18	118	..	5	16	..	..	..	157
Benefits paid—									
Unemployment .. £	4,088,096	2,597,493	2,247,924	592,329	718,883	391,435	3,583	10,885	10650628
Sickness .. £	1,391,594	823,916	527,967	262,532	252,507	101,358	5,069	10,292	3,375,235
Special(c) .. £	174,691	278,277	90,887	33,368	31,692	22,144	290	243	631,592
Total Benefits Paid(c) £	5,654,381	3,699,686	2,866,778	888,229	1003082	514,937	8,942	21,420	14657455
Widows' pensions at end of year—									
Pensions in force ..	22,160	14,549	9,610	5,392	4,486	1,977	142	161	58,477
Class "A" pensions in force(d) ..	9,117	6,212	4,523	2,325	1,930	1,007	67	80	25,261

(a) Includes children in approved institutions. (b) Includes claims paid abroad.  
(c) Includes payments to migrants. (d) Pensions paid to widows who maintain at least one child under 16 years of age.

## CHAPTER XVII. PUBLIC HEALTH INSTITUTIONS

### § 1. Public Hospitals (other than Mental Hospitals), § 2. Mental Hospitals, pp. 718-23

The following tables provide summarized information on public and mental hospitals for the year 1961-62.

## PUBLIC HOSPITALS, 1961-62

Particulars	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Hospitals ..	269	144	143	65	91	28	4	1	745
Medical staff(a) ..	5,577	2,421	881	827	493	333	17	86	10,535
Nursing staff(b) ..	14,543	10,237	5,947	3,121	3,307	1,442	198	287	39,082
Beds and cots ..	23,193	13,193	12,450	4,403	4,922	2,683	480	318	61,642
Admissions ..	494,755	277,858	224,973	86,683	97,161	36,089	8,625	9,521	1,235,665
Total in-patients (cases) treated	511,784	287,127	233,351	89,409	100,143	37,919	8,948	9,736	1,278,417
Out - patients (cases)(c) ..	1,233,225	626,397	655,463	112,445	132,000	92,929	78,210	16,120	2,946,789
Deaths ..	14,706	9,543	6,387	2,956	2,351	1,267	193	166	37,569
Average daily number of patients resident ..	16,695	9,004	8,166	2,769	3,059	1,845	330	237	42,105
Revenue £'000 ..	37,890	32,137	17,380	9,175	11,052	4,120	1,234	1,007	113,995
Expenditure ..	43,725	31,121	17,754	9,112	11,279	4,117	1,234	994	119,336

(a) Honorary and salaried. (b) Qualified and student nurses, assistant nurses, assistant nurse trainees, nursing aides and nursing aide trainees. (c) Partly estimated.

## MENTAL HOSPITALS, 1961-62

Particulars	N.S.W.	Vic. (a)	Q'land (b)	S.A.	W.A. (c)	Tas.	Aust.
Hospitals .. .. .	15	11	5	2	4	1	38
Medical staff(d) .. .. .	107	126	20	16	10	5	284
Nursing staff and attendants .. .. .	2,666	2,607	1,128	537	366	214	7,518
Beds .. .. .	13,494	8,950	4,267	2,696	1,737	850	31,994
Admissions .. .. .	2,801	3,486	1,616	609	266	600	9,378
Discharges .. .. .	2,256	2,636	1,402	546	103	541	7,484
Deaths .. .. .	842	677	253	160	99	46	2,077
Average daily number of patients resident .. .. .	12,164	8,326	3,950	2,392	1,668	763	29,263
Revenue (excluding gov. rnment grants) .. .. . £'000	628	638	117	105	76	24	1,588
Total expenditure .. .. .	9,285	8,297	2,771	1,296	1,009	663	23,321

(a) Year 1961. (b) Includes the Epileptic Home. (c) Excludes hospitals not operating under the terms of the *Lunacy Act*. (d) In addition, there are in New South Wales 57 visiting specialists who are paid for their services.

## CHAPTER XVIII. EDUCATION, ETC.

## EDUCATION

## § 9. Universities

Teaching and Research Staff and Students Enrolled, pp. 743-4.—The following table shows the numbers of full-time teaching and research staff and of students enrolled at Australian universities for the year 1962.

## UNIVERSITIES: FULL-TIME TEACHING AND RESEARCH STAFF AND STUDENTS ENROLLED, 1962

University	Full-time teaching and research staff	Students enrolled(a)
Australian National University .. .. .	139	1,564
Sydney .. .. .	698	14,030
New South Wales .. .. .	672	9,164
New England .. .. .	227	2,951
Melbourne .. .. .	691	12,054
Monash .. .. .	121	798
Queensland .. .. .	580	10,507
Adelaide .. .. .	406	6,824
Western Australia .. .. .	247	3,853
Tasmania .. .. .	120	1,572
<b>Total .. .. .</b>	<b>3,901</b>	<b>63,317</b>

(a) Adjusted total.

## CHAPTER XX. PRIVATE FINANCE

## CURRENCY

## § 2. Coinage

**Issues of Australian Coins, p. 839.**—The net issues of Australian coins to 30th June, 1963, were:—silver, £47,315,000; bronze, £3,657,000; total, £50,972,000.

## § 3. Notes

**The Australian Note Issue, p. 841.**—The average value of notes in circulation for the year 1962–63 was £441,597,000. This amount was distributed in denominations as follows:—10s., £13,088,000; £1, £70,259,000; £5, £197,196,000; £10, £157,878,000; £20, £2,000; £50, £30,000; £100, £34,000; and £1,000, £3,110,000. The amount held by the banks was £62,480,000 and by the public £379,117,000.

## BANKING

## § 1. Cheque-Paying Banks

**The Reserve Bank of Australia, pp. 847-8.**—The average liabilities of the Central Banking Business (including Note Issue Department) of the Reserve Bank for the year ended June, 1963, amounted to £1,045,334,000. Capital and reserve funds amounted to £28,513,000; notes on issue to £438,262,000; statutory reserve deposit accounts of trading banks to £212,254,000; other deposits of trading banks to £59,512,000; deposits of savings banks to £178,211,000; other liabilities to £128,582,000.

Particulars of the average assets were as follows:—gold and balances held abroad, £514,105,000; Australian notes and coin, £9,118,000; cheques and bills of other banks, £1,930,000; government and other securities (including treasury bills), £449,534,000; bills receivable and remittances in transit, £7,658,000; and other assets, £62,989,000.

**The Commonwealth Trading Bank of Australia, p. 851.**—The average liabilities in Australia of the Commonwealth Trading Bank for the year ended June, 1963, were £316,408,000. Of this amount, deposits not bearing interest amounted to £191,318,000 and deposits bearing interest to £121,031,000; balances due to other banks to £800,000; other liabilities to £3,259,000.

The average assets in Australia, £325,664,000, included cash and cash balances £10,990,000; treasury bills and seasonal securities, £2,978,000; other Commonwealth and State government securities, £77,981,000; loans to authorized dealers in the short-term money market, £4,078,000; statutory reserve deposits with Reserve Bank, £34,725,000; cheques, bills and balances with other banks, £14,468,000; loans (other than loans to authorized dealers in the short-term money market), advances and bills discounted, £165,698,000; other assets, £14,746,000.

**Private Trading Banks, p. 852.**—Average liabilities in Australia of the Private Trading Banks for the year ended June, 1963, were £1,632,375,000. Deposits not bearing interest amounted to £1,002,405,000 and deposits bearing interest to £589,453,000; balances due to other banks to £8,613,000; other liabilities to £31,904,000.

The average assets in Australia, £1,645,176,000, included cash and cash balances, £58,413,000; treasury bills and seasonal securities, £31,315,000; other Commonwealth and State government securities, £296,390,000; loans to authorized dealers in the short-term

money market, £27,899,000; statutory reserve deposits with Reserve Bank, £177,079,000; cheques, bills and balances with other banks, £62,555,000; loans (other than loans to authorized dealers in the short-term money market), advances and bills discounted, £894,871,000; other assets, £96,654,000.

**Clearing House Returns—Average Weekly Clearings, p. 860.**—The average weekly bank clearings in each capital city for the year ended June, 1963, were as follows:—Sydney, £223,991,000; Melbourne, £217,516,000; Brisbane, £49,051,000; Adelaide, £45,749,000; Perth, £27,703,000; Hobart, £8,078,000; total, £572,088,000.

**Debits to Customers' Accounts—Cheque-paying Banks, p. 860.**—The average weekly debits to customers' accounts in each State for the year 1962–63 for all cheque-paying banks (excluding debits to accounts of Australian Governments in capital cities) were as follows:—New South Wales, £356,556,000; Victoria, £325,271,000; Queensland, £92,569,000; South Australia, £65,803,000; Western Australia, £44,118,000; Tasmania, £17,534,000; Northern Territory, £1,250,000; Australian Capital Territory, £5,086,000; total, £908,187,000.

## § 2. Savings Banks

**Number of Operative Accounts and Business Transacted, pp. 864–5.**—The numbers of operative accounts in the several States at end of June, 1963, were:—New South Wales, 3,562,000; Victoria, 3,203,000; Queensland, 1,345,000; South Australia, 1,104,000; Western Australia, 683,000; Tasmania, 350,000; Northern Territory, 22,000; and Australian Capital Territory, 54,000; total, 10,323,000. The amounts on deposit in the several States at 30th June, 1963, were:—New South Wales, £703,998,000; Victoria, £649,031,000; Queensland, £235,176,000; South Australia, £208,078,000; Western Australia, £104,406,000; Tasmania, £56,428,000; Northern Territory, £3,496,000; and Australian Capital Territory, £9,233,000; total, £1,969,846,000. Total excess of deposits over withdrawals during 1962–63 was £176,610,000, and interest added was £58,350,000.

## INSURANCE

### § 2. Life Insurance

**New Policies Issued, Policies Discontinued, etc., Premiums and Claims, Australia, pp. 877–83.**—The following is a summary of the life insurance business transacted in Australia during 1962 (figures for 1961 in parentheses) compiled from monthly returns collected from the 40 (39) companies registered under the *Life Insurance Act 1945–1961*, and excluding the Government Insurance Office of New South Wales and the Queensland State Government Insurance Office which operate only within their respective States. Particulars shown are therefore not entirely comparable with those in Chapter XX., which are derived from annual returns and include business of the State Government Offices.

**Ordinary, Industrial, and Superannuation Businesses, respectively:**—*New policies issued in Australia*—numbers, 315,576 (314,971), 155,593 (176,117), 75,281 (76,986); sums insured, £632,004,000 (£579,341,000), £52,171,000 (£44,192,000), £242,229,000 (£219,062,000); *policies discontinued or reduced in Australia*—numbers, 215,719 (342,112, including Superannuation Business), 276,413 (316,278), 96,308 (for year 1961, included with Ordinary Business); sums insured, £247,097,000 (£301,813,000, including Superannuation Business), £33,991,000 (£33,692,000), £85,548,000 (for year 1961, included with Ordinary Business). Particulars of annuities are excluded.

*Premium receipts in Australia* of Ordinary, Industrial, and Superannuation Businesses, respectively, amounted to £98,596,000 (£125,970,000, including Superannuation Business); £15,906,000 (£15,962,000); £37,025,000 (for year 1961, included with Ordinary Business). *Claims, etc., paid* amounted to—£41,470,000 (£53,724,000, including Superannuation Business); £12,827,000 (£14,277,000); £15,086,000 (for year 1961, included with Ordinary Business). Particulars of annuities are included.

### OVERSEA INVESTMENT BY PRIVATE INVESTORS

**Net Annual Flow of Investment, p. 899.**—The net annual flow of investment to Australia for the year ended 30th June, 1962, was £A. 138.2 m. Total annual *inflow* was £A. 145.3m. Of this amount, £A. 140.4m. was invested in companies in Australia, £A.—1.5m. in public authority securities domiciled in Australia, and £A. 6.4m. in Australian public authority debt domiciled overseas. Total annual *outflow* was £A. 7.1m.; £A. 7.5m. was invested in companies overseas, and net remittances from Australia by life insurance companies were £A.—0.4m.

## CHAPTER XXI. PUBLIC FINANCE

### COMMONWEALTH FINANCE

**Consolidated Revenue Fund, pp. 914 and 923.**—The table below shows details of revenue and expenditure for the year 1962–63.

#### COMMONWEALTH CONSOLIDATED REVENUE FUND: REVENUE AND EXPENDITURE, 1962-63 (£'000)

Revenue		Expenditure	
Particulars	Amount	Particulars	Amount
Taxation—		Debt charges .. ..	67,842
Income tax—		Defence services(a) .. ..	95,219
Individuals .. ..	541,711	War and repatriation services..	111,158
Companies .. ..	259,914	Subsidies and bounties .. ..	33,207
Dividend (withholding) ..	8,965	National Welfare Fund—	
Customs .. ..	105,101	Expenditure on social services	374,425
Excise .. ..	274,402	Loan consolidation and invest-	
Sales tax .. ..	156,531	ment reserve trust account ..	26,378
Pay-roll tax .. ..	63,255	Business undertakings—	
Estate duty .. ..	17,850	Postmaster-General .. ..	106,902
Other taxes .. ..	12,730	Broadcasting and television	
<i>Total</i> .. ..	1,440,459	services .. ..	14,055
Business undertakings—		Railways .. ..	5,315
Postmaster-General .. ..	150,689	<i>Total</i> .. ..	126,272
Broadcasting and television		Territories .. ..	34,874
services .. ..	13,574	Works and services—	
Railways .. ..	6,937	Defence services .. ..	55,154
<i>Total</i> .. ..	171,200	Business undertakings .. ..	71,634
Territories .. ..	7,732	Other .. ..	89,874
Other revenue .. ..	65,995	<i>Total</i> .. ..	216,662
<i>Total</i> .. ..	1,685,386	Payments to or for States .. ..	434,448
Grand Total .. ..	1,685,386	Other expenditure .. ..	164,901
		Grand Total .. ..	1,685,386

(a) In addition, an amount of £66,070,000 was spent from Loan Fund.

## COMMONWEALTH AND STATE FINANCE

Revenue and Expenditure, p. 953.—Preliminary information relating to Commonwealth and State revenue and expenditure during 1962–63 is given below.

COMMONWEALTH AND STATE REVENUE AND EXPENDITURE, 1962–63 p  
(£'000)

Government of—	Consolidated Revenue Fund			Loan Fund— net expenditure on works and services
	Revenue	Expenditure	Surplus (+) or deficit (—)	
New South Wales .. .. .	(a)313,419	(a)313,262	+ 157	64,739
Victoria .. .. .	207,076	207,075	+ 1	52,341
Queensland .. .. .	123,491	123,464	+ 27	26,705
South Australia .. .. .	93,684	93,394	+ 290	25,005
Western Australia .. .. .	78,591	79,344	— 753	20,524
Tasmania .. .. .	31,659	32,151	— 492	15,195
<i>Six States</i> .. .. .	847,920	848,690	— 770	204,509
Commonwealth .. .. .	1,685,386	1,685,386	..	70,280
<b>Grand Total—Unadjusted</b> .. .. .	<b>2,533,306</b>	<b>2,534,076</b>	<b>— 770</b>	<b>274,789</b>
<b>Adjusted(b)</b> .. .. .	<b>2,186,556</b>	<b>2,187,326</b>	<b>— 770</b>	<b>274,789</b>

(a) Represents the combined transactions of the Consolidated Revenue Fund and the Business Undertakings—Railways, Tramways and Omnibuses and Sydney Harbour Section of the Maritime Services Board—included in the annual Budget Papers. Adjustments have been made to exclude duplications.  
(b) To avoid duplication in aggregating particulars for the Commonwealth and States, the grand totals have been adjusted to exclude State payments to the Commonwealth in respect of pay-roll tax and Commonwealth payments to the States included in State Consolidated Revenue Funds in respect of interest on State debts, special grants, financial assistance grants, special financial assistance, grants to universities, tuberculosis, capital expenditure and National Welfare payments. There are other relatively minor payments for which adjustments have not been made and the adjusted figures are therefore still slightly overstated.

## GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES

## § 3. Government Securities on Issue: Commonwealth and States

Securities on Issue and Annual Interest Payable, p. 957.—The following table shows details of the government securities on issue on account of the Commonwealth and States and the annual interest payable thereon at 30th June, 1963.

GOVERNMENT SECURITIES ON ISSUE AND ANNUAL INTEREST PAYABLE AT  
30th JUNE, 1963: COMMONWEALTH AND STATES

Particulars	Currency in which repayable							Australian currency equivalent(a)	
	Australian currency	Sterling	United States dollars	Canadian dollars	Swiss francs	Netherlands guilders	German Deutsche marks	Total amount on issue	Total interest liability
	£A.'000	£Stg.'000	U.S. \$'000	Can. \$'000	Sw. fr. '000	f'000	D.M.'000	£A.'000	£A.'000
Commonwealth .. .. .	1,259,364	77,327	362,025	50,948	196,556	7,150	6,355	1,560,336	55,435
States .. .. .	2,696,670	273,843	227,930	16,668	50,296	32,850	..	3,156,798	138,553
<b>Grand Total</b> .. .. .	<b>3,956,034</b>	<b>351,170</b>	<b>589,955</b>	<b>67,616</b>	<b>246,852</b>	<b>40,000</b>	<b>6,355</b>	<b>4,717,134</b>	<b>193,988</b>

(a) Converted at rates of exchange ruling at 30th June, 1963.



## TAXES ON INCOME

Commonwealth Income Tax and Social Service Contribution Assessments, pp. 986-7.—The following table shows particulars for resident individuals for the 1961-62 assessment year.

**COMMONWEALTH INCOME TAX AND SOCIAL SERVICES CONTRIBUTION  
1961-62 ASSESSMENT: NUMBER OF TAXPAYERS, ACTUAL INCOME(a),  
TAXABLE INCOME (b), AND NET INCOME TAX AND SOCIAL SERVICES  
CONTRIBUTION ASSESSED—RESIDENT INDIVIDUALS.**

(Incomes derived in the year 1960-61)

Grade of actual income and State or Territory of assessment		Number of tax-payers	Actual income (a)	Taxable income(b)		Net Income Tax and Social Services Contribution assessed
				Salary and wages	Total	
£	£		£'000	£'000	£'000	£'000
105-	199 ..	159,541	24,862	19,624	23,698	197
200-	299 ..	185,229	46,266	34,654	42,725	770
300-	399 ..	215,468	75,564	56,384	68,277	2,100
400-	499 ..	244,387	109,978	80,463	97,779	4,134
500-	599 ..	265,308	145,996	104,982	128,371	6,903
600-	699 ..	291,960	189,547	136,916	164,792	10,486
700-	799 ..	281,872	211,274	147,383	178,817	12,853
800-	899 ..	302,734	257,629	173,321	208,182	16,285
900-	999 ..	342,070	325,041	216,257	253,077	21,267
1,000-	1,099 ..	353,179	370,714	241,822	280,315	25,227
1,100-	1,199 ..	312,243	358,684	229,405	267,137	25,688
1,200-	1,299 ..	266,540	332,821	210,601	247,973	25,518
1,300-	1,399 ..	216,529	291,689	182,215	217,550	23,821
1,400-	1,499 ..	167,256	242,151	147,460	180,910	21,009
1,500-	1,999 ..	433,485	737,247	417,648	557,458	74,346
2,000-	2,999 ..	208,536	493,926	211,981	387,785	67,925
3,000-	3,999 ..	55,817	190,724	58,266	158,004	36,735
4,000-	4,999 ..	23,604	104,624	26,675	89,161	24,841
5,000-	9,999 ..	26,167	170,276	36,236	149,802	54,686
10,000-	14,999 ..	3,014	35,723	6,941	32,246	15,245
15,000-	19,999 ..	807	13,704	2,716	12,210	6,332
20,000-	29,999 ..	430	10,199	1,705	9,071	5,064
30,000-	49,999 ..	152	5,636	714	4,856	2,944
50,000 and over	..	52	3,755	287	3,056	1,848
Total, Residents ..		4,356,380	4,748,030	2,744,656	3,763,252	486,224
Central Office ..		14,817	43,049	8,886	36,907	11,763
New South Wales ..		1,641,942	1,828,099	1,109,074	1,453,091	188,653
Victoria ..		1,271,981	1,388,160	817,050	1,115,385	145,872
Queensland ..		570,926	587,807	306,101	450,887	54,937
South Australia ..		402,422	418,990	233,865	331,614	39,480
Western Australia ..		285,640	301,425	161,081	236,286	28,645
Tasmania ..		133,540	135,788	79,864	104,945	12,099
Northern Territory ..		8,953	12,007	6,492	7,901	1,002
Australian Capital Territory ..		26,159	32,705	22,243	26,236	3,773
Total, Residents ..		4,356,380	4,748,030	2,744,656	3,763,252	486,224

(a) Actual income is defined briefly as "Gross income including exempt income less expenses incurred in gaining that income". (b) Taxable income is the income remaining after deducting from assessable income all allowable deductions.

The following table shows particulars for resident and non-resident companies for the 1961-62 assessment year.

**COMMONWEALTH INCOME TAX AND SOCIAL SERVICES CONTRIBUTION  
1961-62 ASSESSMENT: NUMBER OF TAXPAYERS, TAXABLE INCOME(a),  
AND NET TAX ASSESSED—RESIDENT AND NON-RESIDENT COMPANIES.**

(Income derived in the year 1960-61)

Grade of taxable income	Taxable			Non-taxable		
	Number of taxpayers	Taxable income(a)	Net Tax assessed (b)	Number of taxpayers	Taxable income(a) (c)	Loss for year
£      £		£'000	£'000		£'000	£'000
<b>Private Companies—</b>						
Loss .. .. .	..	..	..	17,142	..	35,800
Nil .. .. .	..	..	..	6,638	..	..
1— 999 .. .. .	12,928	5,007	1,171	1,745	732	..
1,000— 4,999 .. .. .	17,653	47,164	10,596	2,418	5,954	..
5,000— 9,999 .. .. .	6,592	45,272	10,970	715	4,991	..
10,000— 19,999 .. .. .	3,027	41,758	11,190	358	4,886	..
20,000— 49,999 .. .. .	1,530	45,602	12,555	161	4,698	..
50,000— 99,999 .. .. .	360	24,186	6,832	26	1,776	..
100,000—199,999 .. .. .	101	13,655	3,910	5	704	..
200,000—499,999 .. .. .	28	7,943	1,941	1	382	..
500,000—999,999 .. .. .	4	3,161	733	..	..	..
1,000,000 and over .. .. .	2	2,889	598	..	..	..
<b>Total .. .. .</b>	<b>42,225</b>	<b>236,637</b>	<b>60,496</b>	<b>29,209</b>	<b>24,123</b>	<b>35,800</b>
<b>Non-private Companies—</b>						
Loss .. .. .	..	..	..	1,950	..	24,574
Nil .. .. .	..	..	..	1,125	..	..
1— 999 .. .. .	1,733	512	173	77	20	..
1,000— 4,999 .. .. .	1,789	5,153	1,730	120	328	..
5,000— 9,999 .. .. .	1,318	9,195	3,175	80	603	..
10,000— 19,999 .. .. .	1,103	15,733	5,275	115	1,721	..
20,000— 49,999 .. .. .	1,257	40,327	13,139	115	3,722	..
50,000— 99,999 .. .. .	720	50,190	15,999	74	5,110	..
100,000—199,999 .. .. .	536	74,673	23,930	33	4,503	..
200,000—499,999 .. .. .	307	93,414	28,416	22	6,338	..
500,000—999,999 .. .. .	99	70,332	21,869	5	3,627	..
1,000,000 and over .. .. .	100	294,224	97,534	2	3,193	..
<b>Total .. .. .</b>	<b>8,962</b>	<b>653,753</b>	<b>211,240</b>	<b>3,718</b>	<b>29,163</b>	<b>24,574</b>
<b>All Companies—</b>						
Private and non-private .. .. .	51,187	890,390	271,736	32,927	53,288	60,374
Special section .. .. .	1,250	7,335	2,733	2	..	1
Default .. .. .	23	238	93	..	..	..
Non-profit .. .. .	413	1,146	377	596	30	100
Co-operative .. .. .	1,653	4,346	1,538	267	7	367
<b>Grand Total .. .. .</b>	<b>54,526</b>	<b>903,455</b>	<b>276,477</b>	<b>33,792</b>	<b>53,325</b>	<b>60,842</b>

(a) Taxable income is the income remaining after deducting from assessable income all allowable deductions.  
(b) Excludes additional tax levied on the undistributed income of private companies, £1,301,000.  
(c) Net tax assessed is nil because of rebates, etc.

## CHAPTER XXII. RURAL INDUSTRY

## AGRICULTURAL PRODUCTION

## § 2. Distribution, Production and Value of Crops

Distribution and Production, pp. 1007-9.—The following table shows preliminary figures for the area and production of major crops in Australia during the season 1962-63.

## AREA AND PRODUCTION OF CROPS: AUSTRALIA, 1962-63 p

Crop	Area	Production	Crop	Area	Production
	'000 acres	'000		'000 acres	'000
Cereals for grain—			Industrial crops—		
Barley .. ..	2,026	39,221 bus.	Cotton .. ..	35	n.a.
Maize .. ..	212	n.a.	Flax (for linseed) ..	97	26 tons
Oats .. ..	3,294	68,809 "	Peanuts .. ..	36	270 cwt.
Rice .. ..	55	7,093 "	Sugar cane (for crush-		
Sorghum .. ..	391	10,252 "	ing) .. ..	402	n.a.
Wheat .. ..	16,469	306,912 "	Tobacco .. ..	28	12,736 lb.
Other .. ..	139	.. "	Other .. ..	192	..
<i>Total</i> .. ..	<i>22,586</i>	<i>..</i>	<i>Total</i> .. ..	<i>790</i>	<i>..</i>
			Potatoes .. ..	116	n.a.
Hay .. ..	2,717	4,713 tons	Vineyards, orchards,		
Green fodder ..	4,952	n.a.	etc. .. ..	441	..
Grass seed ..	149	223 cwt.	<i>Grand Total</i> ..	<i>(a) 32,080</i>	<i>..</i>

(a) Includes an estimate for particulars not yet available.

Total area of crops in each State and Territory during 1962-63 was:—New South Wales, 8,904,000 acres; Victoria, 6,322,000 acres; Queensland, 3,471,000 acres; South Australia, 5,495,000 acres; Western Australia, 7,484,000 acres; Tasmania, 395,000 acres; Northern Territory, 2,000 acres; Australian Capital Territory, 7,500 acres.

## PASTORAL PRODUCTION

## § 1. Introduction

Livestock Numbers, p. 1057.—The following table shows, for each State and Territory, the numbers of livestock at 31st March, 1963.

## LIVESTOCK NUMBERS, 31st MARCH, 1963 p

('000)

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Horses ..	166	58	212	25	39	8	41	1	550
Dairy cattle ..	1,262	1,858	1,193	281	240	238	(a)	3	5,075
Beef cattle ..	3,307	1,367	6,030	398	1,058	206	1,055	11	13,432
Sheep ..	70,021	27,472	22,811	15,738	18,727	3,570	14	279	158,632
Pigs ..	392	298	402	145	131	70	2	(a)	1,440

(a) Less than 500.

### § 5. Pastoral Products: Wool

**Wool Production, p. 1068.**—The estimated production of wool (greasy basis) in Australia during 1962–63 was 1,663,300,000 lb.

### § 6. Pastoral Products: Meat

**Production of Meat, pp. 1077 and 1079.**—The following table shows, for each State and Territory, the production of meat during 1962–63.

**PRODUCTION OF MEAT, 1962-63 p**  
(Tons Carcass Weight)

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Beef and veal ..	259,626	209,495	312,956	36,079	55,896	23,470	5,127	1,731	904,380
Mutton and lamb ..	198,335	236,533	38,532	58,575	41,255	19,052	85	1,635	594,002
Total meat (incl. pigmeats) ..	488,303	472,812	380,672	106,488	108,821	47,889	5,327	3,694	1,614,006

### OTHER RURAL INDUSTRIES: DAIRYING, POULTRY AND BEE-FARMING

#### § 1. The Dairying Industry

**Principal Dairy Products, pp. 1088-1096.**—Particulars of the total production of these commodities in each State and the Australian Capital Territory during 1962–63 are shown below.

**PRINCIPAL DAIRY PRODUCTS, 1962-63 p**

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.(a)
Total whole milk ('000 gals.)	325,869	676,205	247,720	94,330	56,286	78,627	1,116	1,480,153
Butter(b) .. (tons)	36,466	101,851	36,619	7,408	7,003	13,273	1	202,621
Cheese(b) .. (tons)	5,304	25,288	10,200	15,028	1,471	662	..	57,953
Pigmeats .. (tons)	30,342	26,784	29,184	11,834	11,670	5,367	328	115,624

(a) Includes Northern Territory.

(b) Factory and farm production.

## CHAPTER XXV. MINERAL INDUSTRY

### § 2. The Mineral Industry

**Quantity and Value of Production, pp. 1154 and 1192.**—In the following table, particulars are given of the quantity and value of production in Australia of the principal minerals during the year 1962.

**MINERAL PRODUCTION: QUANTITIES AND VALUES, AUSTRALIA, 1962 p**  
**METALLIC MINERALS**

Principal contents of metallic minerals produced								Local Value of production—metal mining
Copper	Gold	Iron	Lead	Silver	Tin	Tungsten (a)	Zinc	
'000 tons	'000 fine oz.	'000 tons	'000 tons	'000 fine oz.	tons	tons	'000 tons	£'000
111	1,073	3,120	370	17,541	2,714	1,042	338	80,144

(a) In terms of WO<sub>3</sub> (tungstic oxide).

MINERAL PRODUCTION: QUANTITIES AND VALUES, AUSTRALIA, 1962 p  
—continued

NON-METALLIC AND FUEL MINERALS

Quantities produced						Local value of production —non-metal and fuel mining
Coal		Asbestos	Gypsum	Limestone(a)	Salt	
Black	Brown					
'000 tons 24,481	'000 tons 17,137	Short tons 18,416	tons 630,908	'000 tons 6,377	tons 534,966	£'000 79,588

(a) Excludes limestone used as a construction material.

§ 3. Gold, § 4. Lead, Silver and Zinc, § 5. Copper, § 6. Tin,  
pp. 1156–69

Smelter and refinery production of the principal metals treated in Australia during the year 1962 is shown below.

SMELTER AND REFINERY PRODUCTION OF PRINCIPAL METALS: AUSTRALIA,  
1962

Refined Gold	Refined silver (a)	Refined lead (a)	Lead content of lead bullion produced for export (a)	Refined zinc (a)	Refined copper (a)	Refined tin (a)
'000 fine oz. 1,163	'000 fine oz. 7,378	Tons 190,125	Tons 73,110	Tons 167,927	Tons 79,450	Tons 2,704

(a) Source: Bureau of Mineral Resources.

CHAPTER XXVII. REPATRIATION

§ 2. War Pensions, § 3. Service Pensions, pp. 1211-8

The following table gives a summary of war and service pensions current at 30th June, 1963, and of the amounts paid in pensions during the year 1962–63.

WAR AND SERVICE PENSIONS: SUMMARY, 1962–63

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Abroad	Total
War Pensions—(a)								
Pensioners at end of year	225,500	190,949	97,098	66,565	57,543	28,214	4,532	670,401
Amount paid during year	24,125	20,941	10,394	6,190	5,263	2,834	771	70,518
Service Pensions—(a)								
Pensioners at end of year	19,385	15,394	10,597	6,674	7,526	2,585	..	62,161
Amount paid during year	3,547	2,475	1,681	1,243	1,464	419	..	10,829

(a) Includes dependants of eligible pensioners.

## CHAPTER XXIX. MISCELLANEOUS

## § 4. Retail Trade, p. 1245

Census of Retail Establishments and Other Services, 1961-62.—The following tables contain preliminary results of the Census of Retail Establishments and Other Services taken in respect of the year ended 30th June, 1962. Detailed explanatory notes concerning the scope of the Census, the procedure and the method of classification adopted, and other matters may be found in the prefaces to a series of mimeographed preliminary statements for Australia and the individual States and Territories issued by this Bureau.

NUMBER OF ESTABLISHMENTS WHICH SOLD GOODS IN EACH COMMODITY GROUP SPECIFIED(a), 1961-62

Commodity group	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<b>Food—</b>									
Groceries .. ..	12,532	8,819	4,699	3,480	2,342	1,347	82	78	33,379
Meat .. ..	5,111	3,674	1,890	1,439	1,272	599	48	41	14,074
Fruit .. ..	8,302	4,429	3,989	2,050	1,684	1,095	56	50	21,655
Bread .. ..	10,619	7,722	4,224	2,696	1,875	948	60	65	28,209
Confectionery ..	16,431	10,434	6,537	4,172	3,223	1,773	102	100	42,772
Other .. ..	9,247	5,606	3,734	2,491	1,714	658	54	49	23,553
<b>Beer, etc.—</b>									
Beer .. ..	2,678	2,106	1,241	740	757	314	62	46	7,944
Tobacco .. ..	23,082	16,003	8,715	6,046	4,499	2,247	147	171	60,910
<b>Clothing, etc.—</b>									
Men's clothing ..	3,156	2,376	1,458	1,125	947	394	55	37	9,548
Women's clothing ..	4,443	3,503	1,540	1,206	871	459	54	53	12,129
Drapery .. ..	3,067	2,327	1,423	1,048	902	355	43	30	9,195
Men's footwear ..	2,302	1,725	1,237	831	644	352	40	32	7,163
Women's footwear ..	2,019	1,454	962	783	551	318	32	26	6,145
<b>Hardware(b), etc.—</b>									
Domestic hardware ..	3,884	3,248	1,877	1,587	1,086	494	47	49	12,272
Radios .. ..	1,522	1,244	723	487	510	182	20	24	4,712
Television .. ..	1,258	1,226	400	400	259	194	..	23	3,760
Musical instruments ..	741	503	356	236	170	55	11	7	2,079
Domestic refrigerators ..	1,445	1,175	646	428	330	165	16	17	4,222
Other electrical goods ..	2,837	2,303	1,193	945	769	335	29	37	8,448
<b>Furniture, etc.—</b>									
Furniture .. ..	1,265	1,076	577	407	413	152	12	22	3,924
Floor coverings .. ..	1,012	827	366	360	257	145	9	18	2,994
<b>Other goods—</b>									
Chemists' goods .. ..	5,773	3,990	2,720	1,832	1,490	622	58	48	16,533
Newspapers .. ..	3,990	3,524	2,560	1,805	1,131	560	47	41	13,658
Sporting requisites ..	1,862	1,275	803	656	551	204	22	20	5,393
Jewellery .. ..	1,939	1,396	830	668	580	217	30	32	5,692
Other goods .. ..	3,779	3,500	1,381	1,064	796	375	44	57	10,996
<b>Total (excluding Motor Vehicles, etc.) ..</b>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Motors, etc.(c)—</b>									
New vehicles .. ..	1,316	851	616	470	342	104	22	19	3,740
Used vehicles .. ..	1,719	1,128	722	611	424	125	23	19	4,771
Motor parts .. ..	5,055	3,794	2,166	1,531	1,337	512	54	44	14,493
Petrol, etc. .. ..	5,775	4,263	2,518	1,715	1,455	619	61	35	16,441
<b>Total, Motor Vehicles, etc. ..</b>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Grand Total(d) ..</b>	<b>46,229</b>	<b>37,268</b>	<b>17,067</b>	<b>11,812</b>	<b>8,559</b>	<b>4,270</b>	<b>309</b>	<b>432</b>	<b>125,946</b>

(a) Figures refer to establishments with total retail sales of £500 or more. (b) Excludes basic building materials and builders' hardware and supplies (such as tools of trade, paint, etc.). (c) Excludes tractors, farm machinery and implements, earth-moving equipment, etc. (d) Total number of individual establishments. Many establishments showed sales in more than one commodity group. Thus the number of establishments selling goods in each commodity group does not add down to the total number of individual establishments.

**VALUE OF RETAIL SALES OF GOODS: COMMODITY GROUPS(a), 1961-62**  
(£'000)

Commodity group	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<b>Food—</b>									
Groceries .. ..	167,997	116,304	62,401	35,486	32,642	14,277	1,519	2,703	433,329
Meat .. ..	82,596	62,092	28,855	17,892	13,476	6,928	586	1,149	213,574
Fruit .. ..	38,132	28,374	13,050	7,391	7,084	2,254	420	569	97,274
Bread .. ..	32,731	27,934	11,045	8,170	5,642	2,853	283	388	89,046
Confectionery .. ..	38,023	37,786	12,922	10,466	6,756	3,568	314	469	110,304
Other .. ..	29,633	19,225	11,159	6,485	4,335	1,393	204	450	72,884
<b>Beer, etc.—</b>									
Beer .. ..	106,941	75,851	37,386	23,640	20,709	8,489	1,538	1,315	275,869
Tobacco .. ..	48,372	36,585	16,508	10,835	8,447	4,095	490	797	126,129
<b>Clothing, etc.—</b>									
Men's clothing .. ..	55,522	39,041	17,285	12,149	9,212	4,643	346	944	139,142
Women's clothing .. ..	84,484	63,196	24,394	19,837	12,766	7,590	362	1,213	213,842
Drapery .. ..	39,069	27,155	14,940	8,396	6,698	2,839	152	649	99,898
Men's footwear .. ..	10,329	7,939	3,072	2,524	1,764	928	82	151	26,789
Women's footwear .. ..	19,636	15,676	6,072	4,470	3,337	1,696	63	269	51,219
<b>Hardware(b), etc.—</b>									
Domestic hardware .. ..	29,619	20,001	10,885	6,149	4,994	2,039	247	502	74,436
Radios .. ..	7,632	4,280	2,665	1,675	1,207	497	60	212	18,228
Television .. ..	19,139	13,792	5,272	3,829	3,690	1,720	..	496	47,938
Musical instruments .. ..	4,750	2,730	1,739	1,016	717	291	27	92	11,362
Domestic refrigerators .. ..	13,410	9,414	5,537	3,180	3,432	1,011	87	202	36,273
Other electrical goods .. ..	23,214	17,029	8,935	5,508	4,930	1,808	154	485	62,063
<b>Furniture, etc.—</b>									
Furniture .. ..	31,046	22,350	9,779	6,950	5,493	2,222	90	660	78,590
Floor coverings .. ..	15,619	10,726	3,347	3,362	2,482	1,388	14	555	37,493
<b>Other goods—</b>									
Chemists' goods .. ..	54,712	36,844	18,511	11,308	7,795	3,741	302	808	134,021
Newspapers .. ..	33,807	25,854	10,762	5,321	4,994	2,746	231	742	84,457
Sporting requisites .. ..	7,707	5,570	2,165	1,573	1,316	633	115	118	19,197
Jewellery .. ..	12,697	8,788	3,884	2,452	2,054	843	81	217	31,016
Other goods .. ..	25,237	24,876	8,516	6,136	4,412	2,593	207	584	92,561
<b>Total (excluding Motor Vehicles, etc.)</b> .. ..	<b>1,032,054</b>	<b>759,412</b>	<b>351,086</b>	<b>226,200</b>	<b>180,384</b>	<b>83,085</b>	<b>7,974</b>	<b>16,739</b>	<b>2,656,934</b>
<b>Motors, etc.(c)—</b>									
New vehicles .. ..	118,155	84,846	39,397	26,804	27,671	10,114	1,136	2,814	310,937
Used vehicles .. ..	84,449	57,558	29,632	20,732	19,828	8,501	670	1,680	223,050
Motor parts .. ..	42,709	25,574	17,637	9,035	7,871	2,936	598	540	106,900
Petrol, etc. .. ..	67,833	47,037	22,492	15,219	11,743	5,385	511	1,452	171,672
<b>Total, Motor Vehicles, etc. ..</b>	<b>313,146</b>	<b>215,015</b>	<b>109,158</b>	<b>71,790</b>	<b>67,113</b>	<b>26,936</b>	<b>2,915</b>	<b>6,486</b>	<b>812,559</b>
<b>Grand Total ..</b>	<b>1,345,200</b>	<b>974,427</b>	<b>460,244</b>	<b>297,990</b>	<b>247,497</b>	<b>110,021</b>	<b>10,889</b>	<b>23,225</b>	<b>3,469,493</b>

For footnotes see previous table.

## NUMBER OF RETAIL ESTABLISHMENTS: TYPES OF BUSINESS(a), 1961-62

Type of business	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<b>Food, etc.—</b>									
Grocers .. ..	9,608	4,391	3,635	2,011	1,454	1,046	60	51	22,256
Butchers .. ..	3,273	2,627	1,363	1,034	733	357	13	28	9,428
Fruiters .. ..	2,342	2,135	604	613	357	94	13	31	6,168
Bakers .. ..	1,577	1,350	668	392	317	158			4,483
Confectioners ..	2,329	4,007	844	1,059	574	307			9,153
Cafés .. ..	1,148	675	332	117	182	59	33	45	2,540
Fishmongers ..	819	730	253	177	128	44			2,160
Other food stores ..	942	811	307	252	127	53			2,501
<b>Hotels, etc.—</b>									
Hotels, wine saloons ..	2,157	1,798	1,175	650	545	311	31	11	6,678
Tobacconists .. ..	558	414	164	70	98	21	(b)	(b)	1,336
Tobacconists and hair-dressers .. ..	897	1,125	162	319	186	51	(b)	(b)	2,747
<b>Department stores, etc.—</b>									
Department stores ..	89	47	28	12	14	6		3	199
Clothing and drapers ..	4,887	4,114	1,482	988	700	336	41	57	12,605
Footwear stores ..	741	818	219	209	103	78	(b)	(b)	2,185
<b>Hardware, etc.—</b>									
Domestic hardware stores .. ..	932	1,078	301	274	162	43	(b)	(b)	2,803
Electrical stores ..	1,448	1,109	689	402	309	157	14	16	4,144
Furniture stores ..	800	739	341	184	158	80	(b)	(b)	2,329
<b>Other stores—</b>									
Chemists .. ..	1,874	1,390	675	466	303	124	7	20	4,859
Newsagents .. ..	1,127	922	487	237	298	121	10	19	3,221
Sports goods stores ..	333	234	120	64	44	23			826
Watchmakers .. ..	695	528	235	138	97	54			1,761
Cycle stores .. ..	103	156	68	51	30	8	20	42	417
Florists .. ..	386	437	83	85	63	44			1,106
Other .. ..	1,157	1,258	387	290	207	120			3,450
<b>Total (excluding Motor Vehicle Dealers, etc.)..</b>	<b>40,222</b>	<b>32,893</b>	<b>14,622</b>	<b>10,094</b>	<b>7,189</b>	<b>3,695</b>	<b>257</b>	<b>383</b>	<b>109,355</b>
<b>Motors, etc.—</b>									
New motor dealers, garages, etc. ..	5,015	3,716	2,010	1,405	1,061	475	41	36	13,759
Used motor dealers ..	437	309	163	154	140	48			1,259
Motor parts dealers ..	555	350	272	159	169	52	11	13	1,573
<b>Total, Motor Vehicle Dealers, etc. ..</b>	<b>6,007</b>	<b>4,375</b>	<b>2,445</b>	<b>1,718</b>	<b>1,370</b>	<b>575</b>	<b>52</b>	<b>49</b>	<b>16,591</b>
<b>Grand Total ..</b>	<b>46,229</b>	<b>37,268</b>	<b>17,067</b>	<b>11,812</b>	<b>8,559</b>	<b>4,270</b>	<b>309</b>	<b>432</b>	<b>125,946</b>

(a) Figures refer to establishments with total retail sales of £500 or more. publication.

(b) Not available for



**VALUE OF RETAIL SALES OF GOODS: TYPES OF BUSINESS(a), 1961-62**  
(£'000)

Type of business	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<b>Food, etc.—</b>									
Grocers .. ..	235,268	138,013	93,376	48,832	46,362	21,109	3,078	2,967	589,005
Butchers .. ..	79,968	61,182	27,584	17,106	12,397	6,871	506	1,094	206,708
Fruiterers .. ..	35,984	27,636	9,042	7,119	5,920	1,535			87,991
Bakers .. ..	23,740	20,937	7,850	6,339	4,423	2,182	390	843	65,949
Confectioners ..	24,766	52,714	7,765	12,699	5,312	2,936			106,686
Cafés .. ..	5,780	2,758	1,601	492	623	282	265	725	11,695
Fishmongers ..	7,749	5,693	2,236	1,370	1,146	440			18,809
Other food stores ..	17,949	13,234	6,284	3,228	1,274	702			42,833
<b>Hotels, etc.—</b>									
Hotels, wine saloons ..	111,569	77,377	39,820	24,799	21,543	9,191	1,550	1,271	287,120
Tobacconists .. ..	6,373	3,537	1,647	811	718	228	(d)	(d)	13,457
Tobacconists and hair-dressers .. ..	2,133	3,357	289	809	377	164	(d)	(d)	7,141
<b>Department stores, etc.—</b>									
Department stores ..	123,196	82,398	37,407	34,524	21,246	5,982		2,349	307,102
Clothiers and drapers ..	127,054	96,798	41,869	22,799	20,619	12,384	793	2,531	324,847
Footwear stores ..	16,436	15,883	5,157	3,839	3,376	1,856	(d)	(d)	46,910
<b>Hardware, etc.—</b>									
Domestic hardware stores .. ..	11,869	11,471	4,409	2,638	1,582	1,164	(d)	(d)	33,481
Electrical stores ..	55,788	36,494	21,590	12,208	14,114	4,488	356	1,071	146,109
Furniture stores ..	35,130	27,419	8,801	7,473	4,235	3,297	(d)	(d)	87,500
<b>Other stores—</b>									
Chemists .. ..	46,804	31,168	15,052	9,163	5,969	2,947	261	714	112,078
Newsagents .. ..	31,229	22,646	9,188	3,513	4,526	2,509	183	803	74,597
Sports goods stores ..	5,279	3,843	1,424	807	547	492			12,557
Watchmakers .. ..	9,667	6,498	2,799	1,477	1,471	626			22,770
Cycle stores .. ..	504	978	362	426	248	50	284	670	2,577
Florists .. ..	2,491	2,985	539	518	396	205			7,202
Other .. ..	13,751	13,705	4,813	2,566	2,359	1,385			39,059
<b>Total (excluding Motor Vehicle Dealers, etc.)(b)</b>	<b>1,030,477</b>	<b>758,724</b>	<b>350,904</b>	<b>225,555</b>	<b>180,783</b>	<b>83,025</b>	<b>8,029</b>	<b>16,686</b>	<b>2,654,183</b>
<b>Motors, etc.—</b>									
New motor dealers, garages, etc. ..	253,450	176,335	86,527	55,434	51,385	20,037	2,659	5,708	651,535
Used motor dealers ..	44,809	30,068	15,867	13,120	11,536	5,956	201	831	122,088
Motor parts dealers ..	16,464	9,300	6,946	3,881	3,793	1,003			41,687
<b>Total, Motor Vehicle Dealers, etc.(c)</b>	<b>314,723</b>	<b>215,703</b>	<b>109,340</b>	<b>72,435</b>	<b>66,714</b>	<b>26,996</b>	<b>2,860</b>	<b>6,539</b>	<b>815,310</b>
<b>Grand Total ..</b>	<b>1,345,200</b>	<b>974,427</b>	<b>460,244</b>	<b>297,990</b>	<b>247,497</b>	<b>110,021</b>	<b>10,889</b>	<b>23,225</b>	<b>3,469,493</b>

(a) Figures refer to establishments with total retail sales of £500 or more. They relate to the total value of all commodities sold by retail by establishments classified to the types of business shown. (b) These figures differ from their counterparts in the table on page 1292 because they include retail sales of motor vehicles, etc., made by establishments other than motor vehicle dealers, garages and service stations, etc., and exclude retail sales of goods other than of motor vehicles, etc., made by motor vehicle dealers, etc. (c) See footnote (b). (d) Not available for publication.

VALUE OF RETAIL STOCKS: TYPES OF BUSINESS(a), 30th JUNE, 1962  
(£'000)

Type of business	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<b>Food, etc.—</b>									
Grocers .. ..	24,074	13,935	8,517	5,991	5,029	2,684	343	244	60,817
Butchers .. ..	722	481	324	208	127	71	19	7	1,959
Fruiters .. ..	784	480	300	167	184	66	10	20	1,996
Bakers .. ..	500	527	159	194	96	57			1,548
Confectioners ..	1,281	2,741	369	631	282	178			5,512
Cafés .. ..	493	222	129	37	51	20	25	37	968
Fishmongers ..	85	88	45	27	21	13			283
Other food stores ..	1,634	520	701	130	38	29			3,064
<b>Hotels, etc.—</b>									
Hotels, wine saloons ..	3,862	2,531	1,292	1,097	846	388	101	64	10,181
Tobacconists .. ..	493	317	130	92	84	23	(b)	(b)	1,154
Tobacconists and hair-dressers ..	273	395	23	88	40	23	(b)	(b)	843
<b>Department stores, etc.—</b>									
Department stores ..	27,530	12,803	7,634	5,245	4,300	1,487	281	420	59,419
Clothiers and drapers ..	28,469	25,334	10,781	5,503	5,374	2,983		539	79,264
Footwear stores ..	5,011	4,937	1,717	1,294	1,109	608	(b)	(b)	14,782
<b>Hardware, etc.—</b>									
Domestic hardware stores .. ..	2,937	3,258	1,025	655	804	299	(b)	(b)	9,050
Electrical stores ..	9,826	7,095	3,942	2,424	2,431	931	70	143	26,862
Furniture stores ..	7,539	6,588	1,570	1,825	777	728	(b)	(b)	19,239
<b>Other stores—</b>									
Chemists .. ..	7,647	5,242	2,717	1,528	959	421	47	123	18,684
Newsagents .. ..	3,850	2,881	1,336	651	717	413	43	124	10,015
Sports goods stores ..	1,242	985	345	227	149	144			3,128
Watchmakers .. ..	4,242	3,078	1,204	721	720	339			10,392
Cycle stores .. ..	119	217	78	140	56	17	66	160	629
Florists .. ..	248	267	38	25	65	22			671
Other .. ..	3,602	2,755	1,468	740	626	390			9,675
<b>Total (excluding Motor Vehicle Dealers, etc.)..</b>	<b>136,463</b>	<b>97,677</b>	<b>45,844</b>	<b>29,640</b>	<b>24,885</b>	<b>12,334</b>	<b>1,093</b>	<b>2,199</b>	<b>350,135</b>
<b>Motors, etc.—</b>									
New motor dealers, garages, etc. ..	21,661	16,848	8,462	5,725	4,713	2,073	361	340	60,183
Used motor dealers ..	3,638	3,296	1,564	1,650	1,210	526	30	92	11,966
Motor parts dealers ..	2,645	1,485	1,297	734	618	142			6,981
<b>Total, Motor Vehicles Dealers, etc. ..</b>	<b>27,964</b>	<b>21,629</b>	<b>11,323</b>	<b>8,109</b>	<b>6,541</b>	<b>2,741</b>	<b>391</b>	<b>432</b>	<b>79,130</b>
<b>Grand Total ..</b>	<b>164,427</b>	<b>119,306</b>	<b>57,167</b>	<b>37,749</b>	<b>31,426</b>	<b>15,075</b>	<b>1,484</b>	<b>2,631</b>	<b>429,265</b>

(a) Figures refer to establishments with total retail sales of £500 or more. They relate to the total value of all goods held for retail sale (including stocks of materials for use in repairs to customers' goods, and foodstuffs for the provision of meals and refreshments) at 30th June, 1962.

(b) Not available for publication.

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